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# *Journal of* *The Connecticut State* *Medical Society*

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THE 146th ANNUAL MEETING *of* THE CONNECTICUT  
STATE MEDICAL SOCIETY

Hotel Griswold, Groton, June 1st and 2nd, 1938

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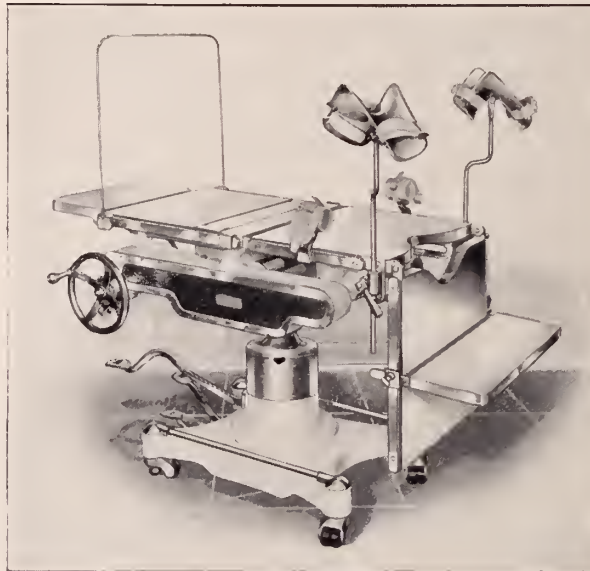
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*A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia*

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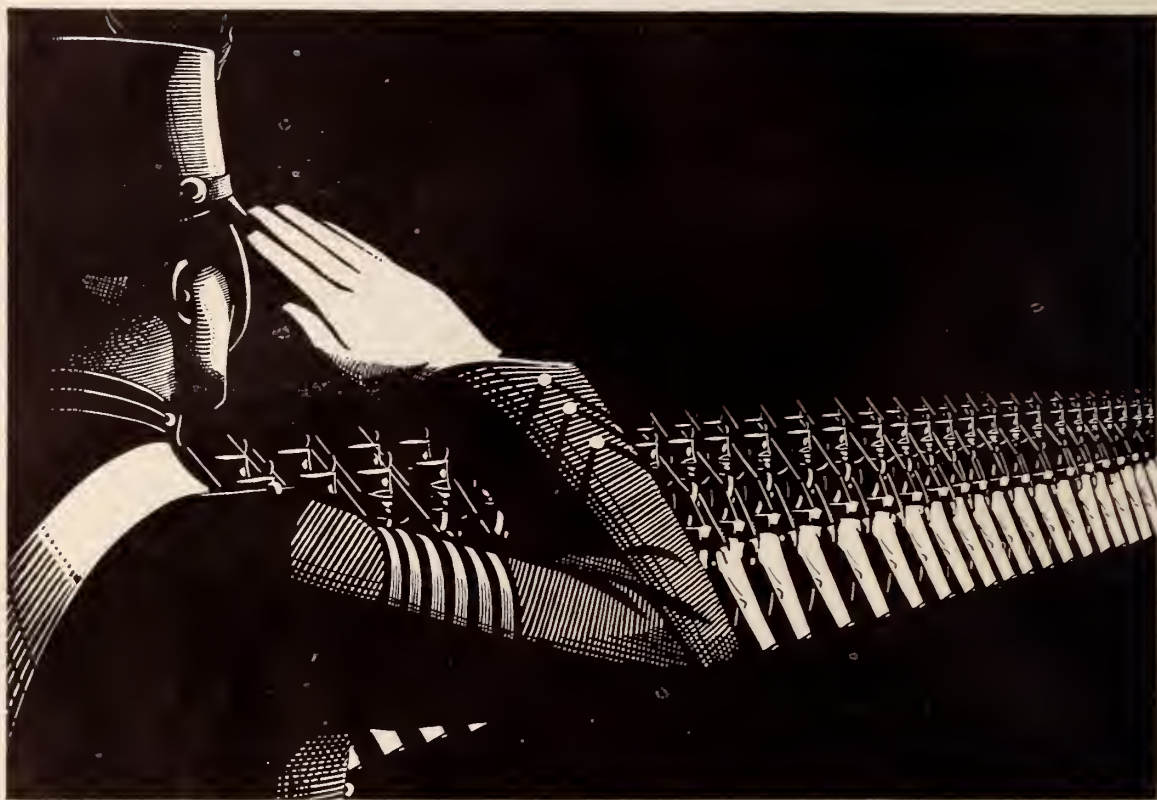
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## STATEMENT OF THE OWNERSHIP, MANAGE- MENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of Journal of The Connecticut State Medical Society,  
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State of Connecticut  
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Before me, a Notary Public in and for the State and  
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who, having been duly sworn according to law, deposes  
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## *A MESSAGE FROM THE GOVERNOR*

TO READERS OF THE JOURNAL OF THE  
CONNECTICUT STATE MEDICAL SOCIETY:

It is a pleasure to extend my greetings for the New Year to the physicians of the state through the medium of their official publication. At the same time I welcome the opportunity to congratulate the Society on its decision to issue this magazine on a monthly rather than a quarterly basis. There is so much of vital interest to Connecticut members of the medical profession developing almost daily, that it would no longer seem possible to keep abreast of the times without the assistance of such a magazine or bulletin.

By maintaining membership in your Society, by attending the conferences it sponsors, and by reading the articles and announcements in the Journal, you cannot help but be better prepared to administer to the wants of the people who look to their physicians in times of need with faith.

WILBUR L. CROSS,  
Governor.



# JOURNAL of The Connecticut State Medical Society

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*Owned and Published Monthly by*  
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258 Church Street, New Haven, Connecticut

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*Editor-in-Chief* - STANLEY B. WELD, M.D.,  
179 Allyn Street, Hartford, Connecticut

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VOL. II.

JANUARY, 1938

NO. 1

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## The Certification of Specialists<sup>\*</sup>

ARTHUR W. ELTING, M.D., Albany, N. Y.  
President, American Surgical Association

The era of specialism in medicine is of comparatively recent development. Fifty years ago specialists were few and were limited to a few branches of medicine. A rapid change has taken place in the attitude of the profession toward specialism, influenced only by the desire of the physician to be a competent specialist in some branch of medicine. At first, to be a specialist one need only to name the specialty and then proceed to practice it according to one's ability.

The ophthalmologists were the first group of specialists in this country to realize that there should be some "hall-mark" to distinguish them. A certifying board was created by the American Ophthalmological Society in conjunction with certain other ophthalmological societies to study the acquirements of those studying ophthalmology. Future requirements were established as a necessary foundation for the certification of physicians in that branch of medicine. The plan was successful. Soon there were certifying boards in oto-laryngology, gynecology and obstetrics, and dermatology. At the American Medical

Association meeting in Milwaukee in 1933 a committee was appointed to correlate and coordinate the activities of the four boards of certification then in existence and to determine certain basic principles to be used in developing certifying boards in other specialties.

The Advisory Board of Medical Specialties was organized in 1934 and appropriate by-laws were adopted. Following this action a certifying board was established in pediatrics, then in neurology and psychiatry, in radiology, urology, orthopedic surgery and pathology. It was decided by the American Medical Association that this Advisory Board of Medical Specialties should work in cooperation with and to a certain extent under the guidance of the Council on Medical Education and Hospitals of the American Medical Association. The Advisory Board organized to include two members from the American Hospital Association, two from the Federation of State Licensure, two from the National Board of Medical Examiners, and representatives from a few other national boards

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<sup>\*</sup>Abstract of address delivered before Hartford County Medical Association, Manchester, October 26, 1937.

of associated interest. The ultimate number of certifying boards was set at twelve, to include a Board of Internal Medicine and one of Surgery.

The function of the Advisory Board was to co-ordinate the activities of the twelve certifying boards, rendering their operation fundamentally the same. The basic requirements for applicants for examination were to be as follows: proper moral status; education in an approved medical school of the United States or Canada; a member of the American Medical Association or of some equally representative organization; one year internship in an approved hospital (as hospitals are now approved); three years devoted to further study of the specialty, part of this time in the basic medical sciences and at least one-half of it in active practical service on the staff of an approved hospital; two more years of continued study or investigation in the chosen specialty or of practice in the same. Having attained this point the candidate would be eligible for examination by the qualifying board of the chosen specialty. This plan has been followed by all of the certifying boards.

A very important problem arose regarding proper opportunities and facilities in our hospitals for the training of specialists. There are today but thirty or forty hospitals in the United States and Canada which afford proper opportunities for post-graduate study. These hospitals, in almost every instance, are connected with medical schools. In surgery, more than in any other specialty, there is need for better hospital facilities for special training. The demand for such training and the demand for trained specialists will increase. At least one hundred more hospitals, and eventually many more than that, must be developed for proper training of specialists.

Because of the increasing interest in surgery throughout the country it has become very easy for physicians to call themselves surgeons, whether or not they have had any training in surgery. Although this situation has produced many self-educated surgeons, it has brought into existence also many incompetent surgeons who are constantly doing things surgically they should never attempt and at whose hands the public is suffering to a considerable degree. The opportunities for adequate training for all have not existed heretofore. It was thought that when the American College of Surgeons was founded in

1913 that at last here was an organization which would determine a real "hall-mark" of surgery and would apply it to the proper individuals all over the country. To standardize surgeons the American College felt that the hospitals must be standardized first in order to provide proper training for surgeons. The present method of surveying and grading American hospitals has fallen far short of the objective.

One of the most important, perhaps the greatest need we have today from the standpoint of hospitals in this country, is some new organization that will fearlessly survey and fearlessly grade our hospitals. At the same time this new organization should be in a position to point out to hospital authorities the standards which they should attempt to maintain if they are to render their service to the community. There are about 2300 hospitals in the United States today which are classified as grade "A"; there are only about forty hospitals which on a present day survey and grading would meet the requirements of the various specialty boards. The need of more hospitals suitable for special training is all too evident.

The American Board of Surgery was formed because of the feeling then existing that the American College of Surgeons was ineffectually accomplishing its purpose in elevating standards. About three years ago a committee from the American Surgical Association together with a similar committee from the Surgical Division of the American Medical Association appealed to the American College of Surgeons to join forces in an American Board of Surgery. The appeal was heeded. The New England Surgical Society, the Southern Surgical Society, the Western Surgical Society, and the Pacific Coast Surgical Society were invited to participate and all accepted. Representation on the new American Board of Surgery was arranged as follows: three members each from the American Surgical Association, the Surgical Division of the American Medical Association and the College of Surgeons; one member each from the New England Surgical, the Southern Surgical, the Western Surgical and the Pacific Coast Surgical Societies. This made a total board of thirteen. This board met for the first time and organized at Chicago in January 1937 with Dr. Evarts Graham of St. Louis as chairman.

Certification by the American Board of Surgery has been extended first to a group of emi-



nent surgeons in the country, in most instances connected with class "A" medical schools. These surgeons were asked to become "founders." To these were added many ably qualified but lacking in such scholastic associations, and the majority of the members of the groups, except the American College of Surgeons, participating in the formation of the Board. Other surgeons may make application to the "founders" group prior to January 1, 1939, and if properly qualified may be certified by the Board. At present there are 523 so-called "founders." All others must be certified by examination, this to be given in two parts, one oral, the other written.

The first examination of the American Board in Surgery was held on October 20, 1937. 269 physicians applied, of whom about 40% were accepted as qualified to take the examination. The remaining 60% in their answers to the preliminary questions sent them did not meet the basic requirements of the Board. To avoid traveling long distances the examinations were held in thirteen different cities. This Part One will be followed by Part Two, a practical examination, conducted in different localities indicated by the geographical distribution of the applicants. Those who pass both parts of the examination will be given a certificate of qualification. All the papers of those failing in Part One are to be reviewed by the entire Board, thus preventing an injustice being done any individual.

The question naturally arises, what are the hospitals going to do about this? In our hospital activities it should always be our endeavor to increase our efficiency and to give our interns and our house staff better opportunities. To attempt to formulate any definitely standardized or stereotyped method of organization of interns and resident and assistant resident staff at the present time is quite impossible. There probably will be, in the near future, a kind of super-council formed which will take in hand the whole problem of inspection, grading and standardization of hospitals. More and more hospitals and medical institutions over the country will be dependent upon municipal, state or Federal aid, and just as fast as those agencies walk in with their dollars they will follow with their bureaucrats. These are the men who are going to tell the doctors how to run the hospitals, what the standards are to be, and what should constitute a specialist.

Efficient organization, definite objectives and distinct progress toward an attainment of these objectives will enable us to give governmental agencies intelligent advice and intelligent guidance. This is more than we could do as we are today, lacking in any definitely coordinated thought upon the subject. This effort to certify specialists is the greatest protection for the public and for the general practitioner as well. Every one certified will have had a basic training or has basic qualifications for the practice of his specialty, justifying his being regarded as a specialist. All may not be outstanding specialists. It will be a great stimulus also to the younger men by indicating to them the path through which specialism can and should be approached.

My object has been to present briefly the history of this movement and the need for it. Every one appreciates, I believe, in what an up-to-date manner these particular problems have been solved. We hope in the same efficient manner to solve the many larger problems immediately facing us; namely, hospital standardization, national licensure, and the formation of an organization which will do for the hospitals of this country essentially the same kind of splendid constructive work that the Council on Medical Education and Hospitals of the American Medical Association has done for medical education. We all are familiar with what it has done. We know how it has surveyed, studied and carefully analyzed the medical schools of this country, how it has reduced the number of medical schools, how it has placed schools improperly conducted or managed out of the picture entirely or on probation, and how it has endeavored to suggest to these schools improvements which obviously were needed. This Council has been extremely helpful. The fact remains today that any medical school in this country on which rests the "hall-mark" of class "A" of the American Medical Association is a pretty good school. I believe that some day a similar kind of elevation in the standards of hospitals may be attained in much the same general manner.

#### DISCUSSION

DR. HUGH CAMPBELL, (Norwich): At what age then would a man be fitted to be a specialist and from whence would he derive his income for such a time as he might become a specialist?

DR. ELTING: It means one year internship, three

more years of hospital association of some sort or another and two years in practice as an assistant or independently. This outline which I have placed before you is equally effective in training men for general medicine. He may drop out at the end of one or two years. He may not decide to become a specialist until after he has been in the hospital a year or two, or even longer, but the time thus spent counts in the last analysis as basic training, provided he gets sufficient training in the given specialty.

DR. L. F. MIDDLEBROOK, (Hartford): I would like to question the speaker about the relative importance, in this scheme of training surgeons, of the rotating internship as opposed to the straight surgical internship. Also the corollary of that, the position in which men in our 35 or 40 hospitals which are training residents find themselves today where from five to seven men compete and but one man reaches the top and the others who lose out have had an inadequate training to fit them for general practice.

DR. ELTING: We have given this considerable thought. Many of us on the Board favor a rotating internship but so many hospitals have given it up and now are offering a more or less straight service. If these men who stop in their training before reaching the top are still headed for surgery, let us say, there are several opportunities for them to secure residencies in smaller hospitals in the smaller communities where they may continue in surgical work and increase their surgical experience; or, they may supplement their training with opportunities which may present themselves, such as assistants to out-patient departments.

DR. MIDDLEBROOK: As I understand it, opportunities for certification exist for two groups, the older men who through their accomplishments have proven their competency, and the younger men who are still students and going on to resident internships and residencies. Is there an opportunity for the group in between?

DR. ELTING: Yes, if these men have applied to the American Board of Examiners and a certain number of them have not met the basic qualifying requirements, they may learn how to supplement their short-comings. It may be that they need, in the judgment of the committee which passed on them, another year in the surgical service or in the pathological laboratory or in something which has a bearing on the given specialty that will make them eligible for the examination. Perhaps they should practice their specialty for one or two years more. This is permissible just as it was before there were any Boards of Certification. After one or more years they may then apply and be eligible because the question of what a man has done in practice is given very serious consideration. If there is evidence that he has done a pretty good job in his practice and an improving job, he is looked upon as eligible.

DR. MIDDLEBROOK: Then it would not be necessary for him to give up practice and go away for more training?

DR. ELTING: No, not unless he was entirely devoid of basic training. If he had no training in the basic sciences that are related to the given specialty it might be suggested to him that six months or a year in a laboratory would supply that deficiency.

DR. MIDDLEBROOK: Would hospital service in a grade "A" acceptable hospital be an equivalent of training?

DR. ELTING: Oh yes. Service today in a good hospital is an equivalent of training.

DR. E. FOSTER, (Meriden): Word has been passed around that to stay on the staff of a really grade "A" hospital one must be certified. Is it going to help that hospital in its grading if men on the staff are certified?

DR. ELTING: The American Hospital Association a year ago adopted a plan and policy of their own making which had that general objective, not requiring the hospitals to appoint to their chief specialties only certified persons, but making it desirable that this be their objective and urging men who occupied important positions in the given specialty to qualify as specialists with certification. This was met with sudden and vigorous opposition because it was misunderstood. It was intended to elevate the standards of the hospitals and to be of benefit to the given specialties in the hospitals and, of course, better for the hospital and for the community. Our more important hospitals certainly will try to have their men in the various specialties in their hospitals qualified by the certifying boards, in one way or another.

DR. FOSTER: Will a hospital which has certified men on its staff rate higher?

DR. ELTING: It will not at present but may in the future. That is a matter of development.

DR. B. J. BUCK, (Hartford): May I be a little specific on the medical side? For instance, many of us in Hartford have had a two year rotating internship from which we have gone into general practice and, after a year or two, into internal medicine, in charge of medical wards, three months a year as members of hospital staffs. How much would the two year rotating internship and three months a year on active duty in the hospital count toward certification in internal medicine?

DR. ELTING: In the last analysis, I believe it would depend somewhat on how many years you have been in practice after you had completed your two year hospital internship. I think that is taken into consideration quite generally; it is with the Board of Surgery. Of course, the great majority of men today are those who have not had the opportunity for even a two year service such as you have had, men who are practising the specialties and practising them very well. The matter of years, the type of work an individual is doing and the specialization — does he really specialize or does he do everything and anything — are taken into consideration in surgery. We say a man must limit his practice to surgery for a certain period of years.



The 1937 House of Delegates of the Medical Society of the State of Pennsylvania approved an increase in the State Medical Society annual dues from \$7.50 to \$10. This action was based largely on proposals to expand the correlated facilities and activities of the Society's Committees on Medical Economics, Public Relations, and Public Health Legislation.—*Penn. Med. Jour.*, Nov., 1937.



# Treatment Of Psychoneuroses<sup>\*</sup>

OSKAR DIETHELM, M.D., New York

In considering the treatment of psychoneurotic disorders, one should keep in mind that they are disorders of the personality, and not of nervous tissue. The main procedure, therefore, is psychotherapeutic. One should, however, not overlook possibilities for somatic treatment. The physician should be interested in and determine all the factors which are present in the maladjustment and correct as many of them as possible. The therapeutic task is to restore the patient to as good a condition as may be expected, to make him willing and able to accept incorrigible shortcomings and lead, what may be considered for him, a healthy, active life. Sometimes it will be necessary to enable a patient to live in a previously intolerable situation; other times one may restore him to and keep him in satisfactory health by the correction of environmental difficulties. No purely somatic treatment is justified. Whenever it is carried out successfully, one needs to look for the personality treatment which was utilized unknowingly by the physician. This may have consisted in rest and removal from disturbing influences, in reassurance by the physician and thus restoration of self-confidence, in suggestive power of the medical treatment. It is indisputable that somatic treatment is frequently indicated but it should never occupy an exclusive position. In the thin asthenic person with neurasthenic complaints, planned exercise and dietary adjustments may be helpful. Hydrotherapy and massage, if carried out in a well-planned form, may help considerably. Less can be said for the old-fashioned rest cure. Where it is still practiced it is quite different from the original procedure. Medicaments help symptomatically only but even so cannot be dispensed with, especially by the general practitioner in his office practice. On the other hand, one should keep in mind that psychoneurotic patients readily become dependent on medication and form a high percentage of drug addicts.

In order to determine the factors which play a role in a psychoneurosis one needs to know how to obtain the history and how to analyze the patient's personality. In order to be able to influence the factor's found, one must be acquainted with various therapeutic procedures. This statement does not imply that a sharp division exists between history taking and treatment. Quite on the contrary, treatment starts with the first contact with the patient. One's task is to establish a healthy relationship with the patient which allows him to gain confidence in his physician. This in turn enables the latter to go on with the treatment as planned and to carry out changes which are the outcome.

For theoretical and practical reasons it has been found most advantageous to obtain the complaints as thoroughly as the patient is eager or able to give them and then to let him evolve the development of his complaints. This gives us the present illness. An inquiry into previous similar complaints and into his general health leads to an understanding of his personal history. This includes a more or less brief statement of the most important events in anyone's life such as school and work record, economic success, marital and family life, and living conditions. It is essential that all these facts be obtained with as accurate time relationship as possible. In a hypochondriacal person, e.g., one who complains of constipation, fatigue and headache, let us determine the onset of each of these complaints and the time of marked aggravation, if any, and let us then note the outstanding dates in the person's life. This demonstrates usually a relationship in time between the onset and aggravation of complaints and life events. An inquiry into the personality will clarify why this relationship is essential and not merely coincidental. The constipation, to return to our hypothetical case, may have started in childhood due to dependence on oversolicitous parents, or in adolescence when high school proved too much for

<sup>\*</sup>Read before the 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.



him, or in adult life when economic or competitive difficulties arose. Different personality tendencies explain why one situation affects one person's health and not another's. It does not explain, however, why the various organs are affected. This interesting question has been repeatedly investigated, but without much success.

In inquiring into the patient's personality it will be necessary to cover at least the most important general tendencies. An understanding of intelligence is essential for the physician in order to know how he should direct his discussion and what he can expect from the patient. It will demonstrate whether the patient has sufficient intelligence in general to deal successfully with his duties in life and whether he has the special talents which are necessary for special positions. A successful worker with details may lack grasp and vision for an executive position. One should investigate the emotional reactions, especially tendencies to moodiness, discouragement, cheerfulness and optimism, and the type and degree of emotional control. The strivings and interests of a person may coincide with work interests to a varying degree. They help or interfere with one's intellectual functions and provoke correspondingly pleasant or unpleasant emotional reactions. The degree of general activity, of persistence in pursuing a goal, of ability for decisions, of unrelenting stubbornness or vacillation is important. A person's standards influence these other tendencies. His ideals in ethical, aesthetic and material needs may be too high or too low, a concept of duty too rigidly or insufficiently developed. Loyalty and honesty to oneself and to others are to be considered. Of considerable importance is the attitude to one's body and to the instinctive desires. There may be little interest in one's body, or even neglect, as well as overconcern. Physical fitness and fatigue fluctuate considerably. Satisfaction of hunger and thirst present little difficulties, except where tendency to overeating or cravings for certain food or alcohol exists. The sexual instincts are disturbing at one time or another in everybody's life. One should inform oneself, in at least a general way, with regard to the amount of individual passion and the possibilities of restraint, both well recognized in periods of continence, the means and ability to control and the ethical attitude for gratification of these desires. The attitude toward material needs may depend

on responsibilities and need for security, on a desire for luxurious life or for power. All these features link up closely with one's attitude to oneself — the capacity for self-denial, self-restraint, self-reliance and self-respect. The social needs may be well satisfied in some, while others may feel lonely or not fit in a group, due to sensitiveness or aggressive self-assertion. It will always be important and to patient and physician both clarifying and constructive, to determine whether the patient leads a life which can be considered healthy according to his individual personality, with a balance of work and recreation, and due attention given to rest and to bodily needs. Hereditary information is valuable because it points to inherited features, which can be influenced little, and to the setting in which the person grew up.

Whenever one deals with a psychoneurotic disorder or a somatic disorder in which psychoneurotic, i.e., personality factors, enter, a history along the lines mentioned should be taken. It may take forty-five minutes to an hour but the amount of time spent in this systematic way is time-saving if one considers the whole course of treatment. Future consultations may be shortened or spaced with longer intervals, circumstantiality and repetition avoided. The information obtained allows the physician to present the problems in a form which should be intelligible to the patient. This formulation of facts is a convincing proof to the patient that his condition is understood and that one should be able to find ways for correction. He will recognize also one of the important principles of psychotherapy — that he, the patient, will be helping himself under the skilful guidance of the physician. The physician works clearly with the principle that self-reliance is one of the important therapeutic goals. Where the patient becomes unavoidably dependent on the physician or where a temporary dependence is fostered by the physician as in the psychoanalytic procedure, this dependence should always be considered transient and never blur the physician's vision of the ultimate goal — self-reliance. One may, frequently, not be able to reach this goal but one should at least strive for it.

The interview which is devoted primarily to an investigation of personality factors is best planned after a thorough physical survey has been completed and clarified the nature of the

patient's complaints. The physician is then in command of all the necessary facts and his statement will therefore be much more convincing to the patient than when several possibilities have not yet been investigated. This does not imply that no personality investigations should be carried out at the earlier contact with the patient. On the contrary — in each contact one should consider the patient's individuality. In order to be most helpful the physician should include in his ordinary history taking an inquiry into the personality but this may be expanded according to the individual case. To illustrate briefly — in a minor surgical condition, the physician may proceed primarily along the lines indicated surgically. In another patient with the same condition considerable attention may have to be directed to the patient's attitude of overconcern or to worries about being temporarily incapacitated in his duties. The role of emotional factors should be considered in practically every patient. A surgeon should include emotional adjustment in his operative preparations. In accidents, not merely fright and anxiety but resentment to injury and inconvenience and many other possibilities must be considered in order to prevent the development of a traumatic neurosis. The obstetrician should evaluate all the personal factors which enter into child-bearing and child-birth. Responsibilities to children weigh differently on various parents. Being sick itself may produce intensely disturbing emotions. In cases of prolonged hospitalization one should investigate the economic implications, the patient's responsibilities to his work and family, what it means for him to be separated from those who are dear, and how he reacts to lack of accustomed comfort. If the patient has to stay in bed at home the dependence on the other members of the family and the disturbance which he causes in the ordinary household may provoke various reactions. If he is up and around, how can he pass leisure; if working, how do the visits to the physician affect his work and how is this interruption accepted by his employer?

In summarized form the actual procedure in the treatment of patients who suffer from psychoneurotic disorders consists of obtaining a detailed history of the development of the complaints and of the outstanding events of his life, with careful attention to accuracy of dates which

will point to relationship in time between the onset of complaints and personal experiences. An investigation into personality features will clarify the psychoneurotic reaction to various situations. The whole discussion should be terminated by the physician's therapeutic formulation which includes a concise and orderly statement of the most important facts and thus demonstrates to the patient that his complaints and symptoms are his personal reaction to difficult situations. In many cases the patient is able to see ways for correction and discuss them constructively with the physician. In other cases the physician will have to point to concrete possibilities of adjustment.

Every physician should be able to carry out this first part of treatment. In involved, but not in the average cases, a psychiatric consultation may be desirable. Many patients who suffer from a mild psychoneurotic reaction do not need any further treatment. Others may have to return for a rediscussion of certain points. The most frequent disorders of this type are tension and mild anxiety reactions, expressed in many somatic complaints such as palpitation, fatigue, headaches, indigestion and constipation. In prolonged psychoneurotic disorders, especially when hypochondriacal or hysterical factors are present, it is necessary to plan a long course of treatment in which the physician must make use of various psychotherapeutic procedures. In the following the methods with which the practitioner should be familiar will be briefly discussed.

As first among the important psychotherapeutic procedures should be mentioned the conducting of a therapeutic interview. Before beginning the physician should know what he wishes the patient to investigate. The topic under consideration may deal with specific personality features or a clearer recollection of some life situation, family or work relationships. It may be wise to point out to the patient what one wishes to investigate while at other times it may be more profitable not to reveal the ultimate goal as it might upset the patient or make him antagonistic. During this whole contact the physician should consider the patient's sensitiveness and realize that it may be exceedingly difficult to mention certain experiences or personal attitudes. The physician might encourage the patient at such difficult periods. If this does not lead to success, it is best to turn to another re-



lated topic and to return to the original one later. Additional understanding or merely having been allowed to collect himself somewhat during this respite may then make the discussion possible. At no time should the physician try to be forceful in his questioning. He ought to remember that he submits problems in the form of a question to the patient's consideration and that he is the leader only. As a rule the patient takes his own problems too importantly. By discussing them thoroughly he acquires a more objective point of view and becomes desensitized. You might say that he puts them on the physician's desk and that he makes his subjective experiences the object for a careful scrutiny with better perspective. There is a tendency on physician's and patient's part to look for some specific underlying causes of an unusual type and to overlook the significance of ordinary experiences which in this particular patient have caused sensitive reactions. It is best to proceed along the lines of a systematic and detailed survey of the patient's life and of his personality. By keeping careful notes of what has been covered, repetitions will be avoided. At the end of each interview the patient should be asked to state what he has obtained from the discussion and what can be done about his difficulties. If the patient is unable to do this or does it incompletely the physician ought to offer his own constructive formulation but keep in mind that this lack of grasp on the patient's part demands a rediscussion at the next or later interview. The therapeutic goal which, however, cannot be realized completely in many patients, is understanding by the patient and not merely trustful acceptance of the physician's explanation. This goal cannot be reached because of sensitiveness or unwillingness to see oneself clearly or because of intellectual limitations. With the unintelligent patients the physician usually must take a much more active part in the interview and offer a solution instead of leading the patient to find it himself. It is rarely wise to go as far as actually to prescribe it. Therapeutic interviews may last from a few minutes to an hour. Longer interviews are undesirable as they prove to be too tiresome or too disturbing emotionally. A well-conducted therapeutic interview is often painful and a considerable strain for the patient and also tiring to the physician. Interviews might be carried out daily, if the patient is in acute distress, or with

varying intervals. It is wise to remember the most frequent pitfalls in this procedure, above all, the tendency to try to find out why the patient developed his special symptoms. It is important that one neglect the symptoms and study the individual personality and life. One further should guard against mere repetitions which are side-tracking and time-consuming. The psychoneurotic patient needs to be educated to the value of time. Interviews should be on time and interruptions, especially telephone calls, avoided. The patient should pay for the time which he has consumed. Psychoneurotic patients who receive free treatment respond on the whole less well than those who contribute financially and sacrifice their working time.

Another psychotherapeutic tool is "reassurance," i.e., establishing confidence in one's health or in the satisfactory medical progress of one's disturbing conditions. Reassurance should not be offered merely by encouraging words but by facts which demonstrate to the patient that he is actually improving. In doing this the physician should use the patient's and the relatives' observations as well as his own. He should be honest, and rather state that there has been little change and for what reasons than to use deception. Reassurance should therefore lead to a broader and more correct attitude to one's illness. The patient should learn to find confidence in himself and not become dependent on reassuring statements which may be offered too frequently.

Suggestion is a therapeutic procedure which one should learn to utilize well. The physician's behaviour will exert the strongest suggestive influence if it expresses calm self-confidence and conviction in the correctness of his statements and procedures. Doubts and contradictions disturb this suggestive influence. The therapeutic effect of suggestion is important whenever one deals with anxious and apprehensive patients. Suggestions will prevent or alleviate symptoms of fear and anxiety. The use of hidden suggestions should be omitted. By this is meant the claims that a certain medicine or therapeutic procedure will produce a specific change, although the physician knows that any change obtained will be entirely due to the patient's belief in his claims. It is best to depend on frank suggestive statements or on the indirect sugges-

tive influence which is exerted by all those who come in contact—nurses and relatives who believe in the correctness of the treatment and have been instructed how to deal with the distressed patient.

"Re-education" is the medical procedure which tries to correct faulty habits of the personality. The change should be achieved primarily through the patient's increasing understanding of himself but frequently the physician needs to assume an active role. He may have to remind the patient repeatedly of the changes desired and encourage him to persist in his endeavour for correction. To change habits of thinking is difficult but possible. The hypochondriacal patient should become aware of his tendency to watch his sensations and make an effort to turn his attention to something different whenever he catches himself in this unhealthy self-observation. The apprehensive person, suffering from cardiac symptoms during an anxiety neurosis, the tense patient suffering from sleep disorders, the person who has unhealthy preoccupations and imaginations need to do the same. This implies that everybody should have healthy interests and imaginations to which he can turn. The physician may have to help the patient find them.

By "routine" is meant the way of living which the physician prescribes. In the psychoneurotic invalid a routine which includes planned occupation, recreation and periods for rest is essential. It is best to work out an hourly schedule to which the patient is required to adhere. Rest periods should be carefully limited and gradually eliminated. It is most desirable that a psychoneurotic patient continue in his work. If he has no such obligation, volunteer work ought to be found. Suitable recreation, physical, social and aesthetic, should be carefully planned with special attention to Sundays and weekends.

There are various kinds of analytic procedures. The non-specialist should use the type of analysis which takes the form of ordinary conversation as it was outlined in the description of the therapeutic interview. One might consider three separate goals which need to be united into one: the analysis of the personality; of occurrences of one's past life; and of the recent events during the period of treatment. This will give an understanding of the actions of the individual at the present time but influenced by his past. Analysis

should lead to a synthesis in which the physician must take an active hand. He should direct the patient to find out what constructive conclusions arise from the analysis of any situation. Without guidance patients have a tendency to analyze their failures only and to look for the causes of illness. By studying periods of success and good health, they will find personality assets which can be utilized to counter-balance their shortcomings.

The environmental adjustment may be important therapeutically. More suitable work and living conditions may help to remove tension and causes for friction. In the treatment of many feeble minded psychoneurotic patients this type of adjustment is quite effective. In the handling of minor psychoneurotic complaints of children, good results are obtained by modifying undesirable parental attitudes or by placing the child in a healthy surrounding.

A few words need to be said with regard to the patient-physician relationship. The patient must be made aware of the need for self-reliance. Dependence on the physician should not be fostered. The physician should be aware of his own personal traits and guard against becoming emotionally involved in the patient or his problems. This may occur in the form of too much sympathy and affection, or irritability, antagonism and disgust. The therapeutically successful physician must be willing to analyze his own reactions and draw the necessary conclusions. A certain distance is necessary, and friends or relatives are best treated by another physician.

Sedatives should play a minor role in this treatment and be avoided during the daytime except in cases of acute anxiety. For unsatisfactory sleep small amounts of barbiturates may be necessary but should not be given for any prolonged period. Attention to gastrointestinal complaints, especially constipation, should be along general medical lines with emphasis on healthy habits. Fatigue of the psychoneurotic type is not overcome by rest but by removal of the situations which cause the tension and by physical activities, especially walking, bathing and golf.

Having discussed treatment of psychoneurotic disorders in general, little needs to be added for the treatment of the various subgroups. In the



form of a summary the following points might be stressed.

Hypochondriasis is characterized by too close attention and over-concern with regard to one's body, and too great awareness of one's sensations. The complaints should be obtained in detail, with attention to their onset, and investigated thoroughly as soon as possible. This will lay the foundation for the patient's confidence. The next step is to obtain a clear history of the patient's life development and of the setting in which the various complaints started. A brief orientation with regard to his personality will explain why these situations were a strain for him. At the end of this consultation the physician is able to offer the patient a formulation of his illness and propose a treatment in which the patient will be encouraged and later required to change his life along the lines of a healthy routine. The condition is explained to members of the family who are advised to be sympathetic but not to express it to the patient. (Re-education tries to achieve neglect of sensations and development of new interests in an active life.) The suggestive influence of the physician who is sure in his knowledge and therefore avoids unnecessary re-examinations induces confidence. Any somatic illnesses are always frankly stated and treated. After the case has been thoroughly investigated psychotherapeutically, visits should occur at intervals of several weeks for the analysis of recent difficulties. Exacerbation of symptoms indicates a difficult situation at that time. Treatment hours should not be spent on repetition of previously discussed material. Each discussion should bring out something new. If marked invalidism has developed, a few weeks' treatment in a psychiatric hospital is indicated for intensive psychotherapy and especially the utilization of occupational therapy and hospital routine. Satisfactory results are obtained in many cases and the treatment is interesting if the physician is able to use each visit constructively. Anxiety reactions are caused by strain and worry and not merely by sexual frustration, as has been claimed. A careful cardiac examination, after the complaints have been obtained fully, is the necessary basis for confidence. During succeeding acute attacks reassurance should be sufficient. The psychotherapeutic investigation turns especially to study situations which are a strain in this individual. A prolonged

personality study may be necessary in which special attention is paid to the person's standards and expectations from himself. Persistent, more or less marked anxiety is dealt with by reassurance, suggestion, and advice with regard to re-education of the rapidly acquired habits of self-observation and anticipation of attacks. If one is not successful hypochondriasis develops. The time should be used for planned investigations of the personality, with avoidance of discussing complaints and previously reviewed situations. Sedatives should only be used during the first week to ten days of treatment. Alcohol should be prohibited and the sexual life hygienically regulated. Dependence on sedatives is easily developed. The prognosis varies according to the degree of involvement of the personality.

Reactions of fatigue and tension, commonly called neurasthenia, are often part of hypochondriasis or anxiety neurosis. After having finished the preliminary survey, the physician should carry out a more detailed personality study in connection with the analysis of current disturbing situations. Any increase of symptoms needs to be investigated accordingly. An active life should be urged and the patient led to understand and to neglect sensations of fatigue.

In hysterical reactions the main emphasis is laid on a personality study and situational analysis. With deliberate and strong use of suggestions the patient is urged to neglect his symptoms. The tendency to gain through the illness must be kept in mind and counteracted without, however, stirring up the patient's antagonism. In compulsions an analysis of the patient's life and personality is combined with re-education in which the patient is requested to suppress his symptoms during an active life. A psychiatric consultation is desirable in cases of hysterical reactions and compulsions. Many menstrual disorders, frigidity and psychic impotency are among the most important psychoneurotic reactions which can be treated successfully along the lines described previously.

Considering the frequency of minor and major psychoneurotic disorders it appears essential that physicians be trained in the use of psychotherapeutic procedures. To achieve this, the student must be taught psychiatry in general in order to be able to recognize, understand and deal with all kinds of psychiatric disorders with which the physician may be confronted in his every day

practice. During his advanced clinical work he should receive practical therapeutic instruction along the lines which have been stressed in this presentation. The technically more involved therapeutic procedures, which belong to the specialist, should be fully explained to him and, if possible, demonstrated. Not enough practical psychiatric instruction is offered in general hospitals. It should be the goal of training during internship not merely to recognize psychiatric, especially psychoneurotic disorders, but to learn to treat them correctly. The psychiatrist should not be expected to claim all these patients for treatment. The well trained internist and general practitioner should be able to treat a considerable number of these cases correctly without specialistic help; for others he may ask for a consultation with a psychiatrist who will help him to outline the treatment; a third group might be treated by the psychiatrist in a general hospital or in his office; and a fourth group should be transferred to a psychiatric hospital. It is to be hoped that the division of the large hospitals into specialistic centers will soon begin to change to a grouping along the lines of emphasis and not separation.

There has been considerable hesitancy among psychiatrists to teaching psychotherapy in the form outlined. It has been feared that it would lead to dogmatism and onesidedness and that the physician would proceed along a definite line and overlook opportunities for therapeutic attacks or warning signals which may occur at any time. The danger of insufficient therapeutic plasticity is no doubt greater in psychotherapy than in any other realm of medical treatment because of each patient's individual peculiarities and reactions. This challenge has to be met if psychotherapy is to receive its rightful place in treatment in general. In carrying out psychotherapy the physician should follow a plan which must be modified temporarily or changed completely if the course of illness demands it. It is essential that he know how to obtain the history of the patient's illness and life and how to evaluate the reactions of the individual personality. He must be able to formulate the facts obtained to the patient in a way which will demonstrate to him the need of and possibilities for changes which will restore him to health and prevent further difficulties. If prolonged treatment is necessary the physician should plan each interview, willing however to

turn in another direction if this seems advantageous. At the end of the therapeutic discussion, patient and physician should know what has been obtained and what can be done about it. A constant effort should be made to find constructive possibilities. Every physician should try to familiarize himself with certain psychotherapeutic procedures — how to guide a therapeutic interview, how to obtain a relatively detailed analysis of personality, how to use reassurance, suggestions, routine and re-education, and how to deal with social problems. In visualizing his therapeutic goal the physician should do justice to the obstacles present and to the limitations of personality assets and not promise the patient and himself a goal of recovery which in many cases can obviously not be reached. On the other hand, a critical therapeutic optimism is essential.



## MEDICINE AT THE CROSSROADS

Medicine stands today at the crossroads of public relations. One way leads over the bridge of compulsory health insurance into the valley of State Medicine and political regimentation. The other leads straight ahead along a constantly widened and improved highway which has brought to the people of this country longer life and better health than that enjoyed by the citizens of any other nation under the sun.

Through the initiative of private physicians, America has become the medical center of the world. Through the initiative of private physicians, the United States has built up a system of public health service which provokes universal envy. Through the initiative of private physicians, the research and training facilities in this country are unexcelled anywhere. Through the initiative of private physicians, the quality and volume of medical care enjoyed by the American people is superior to that obtainable in any other country.

This is the splendid contribution of a free profession to a free people. It is the responsibility of the medical profession to protect and preserve this heritage in order that it may be passed on unimpaired to future generations.—*From President's Address, Ill. Med. Jour., July, 1937.*



# Symposium On Anxiety Conditions<sup>\*</sup>

EUGEN KAHN, M.D., Chairman  
Psychiatrist-in-Chief, New Haven, Hospital

It is a usage — and I think a good usage — of this Clinical Congress to sort of illustrate the formal lectures given during the forenoon with clinics or symposia in the afternoon. When we were asked to have a panel discussion in relation to Dr. Oskar Diethelm's address on "Treatment of Psychoneurotic Disorders", all of us agreed that this topic would be too large an order for a relatively short symposium. It was found wise to cut a slice off the whole cake, namely, to deal with anxiety conditions.

Being only the appointed toastmaster of this occasion, I feel that I should not say much myself, the less as it was possible to cover a number of facets of our topic by speakers of special and considerable experience. I need not tell you what they are going to talk about; you read that on your program. Yet permit me to call your attention to the wording of our topic "Anxiety Conditions"; this implies that there is not *one* condition of anxiety but a variety of such conditions, and that certainly by no means are all anxiety conditions disturbances in the sense of the so-called anxiety neurosis — a concept, incidentally, that is being abused very often as a diagnosis of convenience.

Without going into details, I may say that the term fear is used for an experience of dread with a clear-cut content or object. Anxiety, though emotionally the closest kin to fear, is characterized by the absence of a dreaded object, at least in the conscious part of the experience. It is this very absence of conscious content or object which makes anxiety the immensely threatening, shaking experience it is.

## PHYSIOLOGY OF ANXIETY

Edwin F. Gildea, M.D., New Haven

Anxiety is an emotional experience in which the individual has the uneasy feeling or fear that something unpleasant or even terrible is about to happen.

The capacity for experiencing anxiety is one of man's fundamental traits. Each person has his own peculiar way (in terms of degree, susceptibility, character) of experiencing anxiety. People fall roughly into the following groups:

I. One group is prone to develop the subjective component of anxiety without showing changes in function or vegetative nervous system. Example: The anxious psychopath who wears out his family with complaints but whose visceral functions remain undisturbed, and who lives on to a good old age.

II. A second group behave as if they were anxious, i.e., look anxious, have tachycardia, disturbed gastrointestinal functions, etc., and yet they do not experience the subjective component. Example: Many of the patients with hyperthyroidism.

III. In a third group the subjective experience corresponds with behavior.

Anxiety states in common with other emotional disturbances are determined by the state of thalamus and other centers in the brain stem. Recent experiments, however, by Moniz Egas and subsequently confirmed by Freeman, indicate that the frontal lobes play an important role in the production of symptoms of anxiety. These physicians found that they could relieve patients suffering from chronic and severe anxiety by cutting the pathways connecting the frontal lobes with the rest of the brain. Contrary to previous conceptions the bulk of the clinical and experimental evidence indicates that the viscera and vegetative nervous systems play a secondary role.

These diencephalic centers have their own internal equilibrium, as well as an equilibrium in relation to the impulses coming from the rest of the body or indirectly from the outside world. Studies of the healthy, well-fed baby indicate how satisfactory to the individual this balance can be. Yet it is also quite simple to demonstrate

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the great variety of ways in which the equilibrium can be upset. The prolonged absence of the mother or some irregularity in the feeding routine or bodily disease may be equally effective in throwing the infant into a state of anxiety. In the adult the source of the disequilibrium may be well concealed and the ingenuity of a variety of specialists may be required to reveal it. Actual injury to the diencephalon by a tumor or by diseases such as encephalitis or typhoid fever may produce severe anxiety. Repeated frustrations either in family or work relationships may be equally disrupting to this equilibrium and result in anxiety. Freud has pointed out that maladjustments in sexual development may play an important role in the production of anxiety. For example, individuals with strong homosexual tendencies of which they are largely unaware, may develop anxiety when placed in a situation that activates these latent qualities.

Once these primary changes in the central nervous system have occurred, they find their expression in varied ways, the way depending on individual constitutional and environmental factors. For example, in the people who find expression through verbal and external motor channels difficult or impossible, outlets are found through the vegetative nervous system and ultimately in the disturbance of one or more visceral organs. These disturbances, while similar to those associated with emotional disturbances in general, such as fear, differ in that the physiological response is rarely as general and profound. This point is illustrated by the fact that an elevation in blood sugar rarely occurs even in patients showing the most extreme forms of anxiety. These people will report the most extraordinary degree of fear that something terrible is about to happen and their faces become contorted, pallor and sweating and tachycardia may be marked, and yet during and after this experience their blood sugar remains normal.

Prolonged anxiety not infrequently keeps a particular organ in a state of disturbed activity. Disorders of the heart rate and rhythm are so common in these conditions that many observers have erroneously concluded that the source of anxiety must lie in the heart itself. Disorders of almost any organ in the body may be due to a deep-seated anxiety. Frequently the patient is not aware of the presence of anxiety in himself.

The recognition and treatment of such patients constitutes one of the most intriguing problems in medicine.

### THE IMPORTANCE OF THE FORMAL CASE-STUDY IN THE TREATMENT OF CONDITIONS OF ANXIETY

Paul W. Preu, M.D., New Haven

The complete treatment of the individual patient cannot be planned satisfactorily until a comprehensive diagnosis has been arrived at and as complete as possible an understanding obtained of the cause or causes of the illness. This is the purpose of the formal case-study which, in each instance, should include a detailed psychiatric and medical history, the mental status examination, and a careful physical examination, supplemented by the usual routine and the indicated special laboratory procedures.

The fact needs emphasis that in dealing with an anxious, apprehensive patient it is desirable to complete the examinations which need to be made as soon as it is possible to do so in order that a definite diagnostic opinion may be arrived at, and a preliminary formulation of the situation made to the patient. Since the most troublesome symptoms of anxiety are frequently physical (palpitation, dizziness, faintness), the case-study — and the treatment — should usually begin with the physical examination. This should be done with meticulous care so that the patient has no doubt as to its thoroughness and adequacy. Treatment cannot be expected to progress satisfactorily if, for example, the question of the presence of heart disease is left unsettled in the patient's mind.

Furthermore, it must be kept in mind that anxiety is not a disease-entity. It is a psychobiologic state which may occur alone or in association with a variety of other pathologic conditions. The presence of such a complicating — or primary! — condition in addition to the anxiety must, of course, be taken into consideration in treatment and may modify the course of treatment considerably.

The following simplified outline is presented with suggestions concerning facts to be looked for in the formal case-study while immediate supportive treatment is being given but before the final plan of treatment has been determined.

1. Anxiety may occur as an acute illness in response to an immediate and difficult life-situ-



ation in an individual previously well and fairly comfortably adjusted. If the study indicates this state of affairs, treatment will be directed especially toward the solution of the environmental problem.

2. Anxiety may be a deeply rooted personality characteristic, and symptoms may have been precipitated repeatedly by comparatively trivial circumstances. If this state of affairs is found, treatment will need to be directed especially toward personality study. The patient will need to recognize his ready anxiousness and will have to allow for it and to plan in terms of it. If he is not sufficiently intelligent or for other reasons is not able to do this, simple suggestive and supportive treatment may be all that can be undertaken.

3. Anxiety may be found in association with hyperthyroidism. Although there is some difference of opinion as to the importance of psychiatric treatment in the average case of hyperthyroidism, there is no doubt that under certain circumstances the use of iodine or surgical treatment may be necessary regardless of the possible importance of emotional factors in causing or aggravating the thyroid condition. The basal metabolic rate should be determined in every case of anxiety. It may be difficult to obtain a satisfactory curve when dealing with a tense, restless patient. Obvious local signs such as lid-lag may be absent. The study of the basal sleeping pulse rate may be very helpful. The occurrence of fluctuating tachycardia during the day with a definitely normal heart rate during sleep or prolonged relaxation speaks against the presence of hyperthyroidism. Other differential criteria have recently been suggested. The blood cholesterol level frequently — but not invariably — is moderately diminished in the presence of hyperthyroidism and tends to rise if iodine is administered. The value of the determination of the blood iodine and of the iodine tolerance for the diagnosis of hyperthyroidism is still uncertain.

4. Anxiety may be found in association with other somatic diseases, especially essential hypertension and congestive heart failure. It may be difficult or indeed impossible to say to what extent the patient's discomfort is caused by the anxiety and to what extent it is the direct result of the somatic disease. Both conditions demand recognition and simultaneous adequate treat-

ment. The question of angina pectoris or paroxysmal tachycardia may arise. Diarrhea occurring as a manifestation of anxiety may constitute a diagnostic problem. In all of these cases a careful evaluation of the entire history and of the physical findings needs to be made, with special attention to the relationship between the appearance of symptoms and the environmental situation.

5. Again, the consideration of the life-history may reveal that anxiety may have occurred in fairly prolonged episodic attacks in association with definite sluggishness and depression, arising more or less spontaneously and tending in each attack to follow the relatively automatic course of a manic-depressive illness. Since, of course, the physician may be dealing with the first such attack, in every case of anxiety the presence of depressive features should be sought, especially a consistently depressed mood, diurnal fluctuations of mood and energy, and a tendency toward early morning awakening. A history of cyclic mood swings or of marked menstrual tension in the past, or the occurrence of frank manic-depressive illnesses affecting other members of the family would tend to confirm such a diagnosis. The treatment of a manic-depressive illness with anxiety will, of course, have to be planned along lines essentially conservative and supportive. The question of hospital care may have to be considered and the risk of suicide will need to be evaluated.

6. Finally, in the early stages of a schizophrenic illness, marked anxiety may occur. The physician needs to be alert in order not to be misled by the presence of the obvious affective symptoms and so to fail to recognize the bizarre thinking difficulties, the passivity features, and the generally distorted nature of the underlying schizophrenic disturbance.

The complete case study in conditions of anxiety may be expected, therefore, to yield valuable information which can be put to practical use in treatment.

## THE DIRECT TREATMENT OF ANXIETY CONDITIONS

William B. Terhune, M.D., New Canaan

The treatment of anxiety demands understanding, common sense, and courage. The doctor understands the nature of anxiety and teaches the patient to discount it, he employs

common sense in doing this and so helps the patient to trust to intelligence rather than to fear. The doctor needs the courage of his own convictions which often helps to strengthen the patient's courage.

We know that anxiety is a prolonged psychophysical reaction to fear. It is the normal reaction of the human organism to a past, present or future threat and the danger may be either real or fancied. It is both physiological and psychological in its manifestation, each reinforcing and prolonging the effects of the other. Usually it starts as a psychological state producing its characteristic physiological mobilization of organic forces — this is what occurs in the anxiety neuroses; it may begin as an organic reaction activating latent psychological patterns, which is probably what happens in the involutional depressions.

Anxiety is to mental medicine what fever represents in an organic illness. It is a *symptom* indicating a mild or acute, a temporary or chronic disturbance of mental well-being. The degree and permanence of the anxiety frequently indicates the seriousness of the patient's condition. Like fever, it is an important symptom; its significance must be evaluated in each case, and, as is the case with other distressing and dangerous symptoms, therapy must be skillfully related to the disease process giving rise to it. We discuss the treatment of anxiety with understood cautions and reservations similar to those which surround a discussion of the treatment of fever. Indeed, like fever, anxiety may at times be best left to run its course. But in most cases to lessen anxiety hastens recovery.

**Drugs.** Drugs are of limited usefulness since their effect is temporary. They give the physician a false sense of security and the patient may become dependent on them. When given in sufficient quantity to produce results they are often toxic, may produce additional symptoms, delay recovery, and actually increase anxiety. This is particularly true in middle-aged patients with defective elimination, such as the mild arterio-sclerotics — and anxiety states are most apt to occur in middle age or later. And yet, at times, drugs are indicated.

When an otherwise normal individual experiences acute anxiety as a result of an emotional shock, fairly strong sedation may be indicated. Such a person recovers from the shock and after

a night's rest usually awakens free of anxiety. It is important that people who have shown a tendency to severe anxiety reactions should be so protected during acute emotional crisis in order that more severe and prolonged anxiety states may be prevented. In some people, anxiety once started, it is like the proverbial snowball rolling down the hill and, unless stopped in the beginning, may give rise to an avalanche. In most cases, ten grains of medinal, three grains of sodium amytal or two grains of nembutal (pento barbital-sodium), either alone or in a combination of any two, will give the desired result.

The course of chronic anxiety states, such as the anxiety depressions and anxiety neuroses, are little affected by any drugs. Photodyn administered orally has a quieting influence on some patients; it does them no harm, it gives them a feeling that something is being done for them — but its actual efficacy is doubtful. And similarly the value of endocrine therapy in these cases remains unproven.

It is often necessary in the beginning of the treatment of anxiety states to prescribe sedatives at night, for while sleeplessness does not injure the patient the fear of not sleeping may increase the anxiety reaction. Medinal is the best drug for this purpose and in doses of five to ten grains administered at bedtime it will give the patient six hours sleep. There is usually no hang-over the next morning. An efficacious combination is to give fifteen grains of triple bromide in the early evening to reduce the patient's anxiety about sleeping, and to give ten grains of medinal thirty minutes before bedtime. In some cases it is necessary to give ten grains of medinal combined with three grains of sodium amytal. The use of these drugs should be discontinued as soon as the patient has acquired sufficient understanding and tolerance to get along without them. These sedatives are used at night to tide the patient over until he becomes more confident of recovery and can discount the importance of sleep, — in other words until the program of psychological reeducation produces results.

The continued routine administration of phenobarbital, amytal, and bromides to quiet the patient during the day is unwise. Patients who are not so treated recover more quickly than those who receive such medicine. It can be said that in anxiety states drugs are usually employed as placebos — the sedatives are only tempo-



rarily useful and other medication acts mainly through suggestion.

**Physiotherapy.** Physiotherapy is of little value in reducing anxiety but there are a few procedures to be remembered. Sedative baths cause relaxation and may induce rest. Gentle massage is at times comforting. Severe exercise only exhausts and discourages the patient who often must be protected against a desire to over exercise. The physical treatment of anxiety is:— a few simply calisthenics on arising, to be followed by a warm bath — the patient must be persuaded to eat three good meals regardless of whether he wants them or not, he should take a moderate amount of outdoor exercise and he must be kept occupied.

Occupation allays anxiety. It awakens interest and arouses imagination; it is objective proof of accomplishment. The diversion of the attention reduces fear, produces a reassuring psychological state, and gives the autonomic nervous system an opportunity to recover its stability. Occupational therapy is frequently neglected by the general practitioner and too often formulized by the psychiatrist. It is particularly important in these cases that a project be found which arouses the patient's interest.

**Psychotherapy.** Anxiety states most frequently occur in people who have built up wrong habits of feeling, thinking, or living. They are basically apprehensive individuals whose way of life has not fortified them against emotional shock and strain, in fact most of them have built up conceptions of life, habits of thought, and ways of living which make them in particular vulnerable to fear. These people must therefore be reeducated if they are to experience permanent relief.

The anxiety attack is precipitated by either an acute fear or by a physiological state which activates an already-existing fear pattern. Therefore psychotherapy is the most efficacious form of direct personal treatment.

For thousands of years the physician has sought the cause of diseased states. He still says: "What devil produces this state?"— be that devil a germ, a toxine, or a complex. No one devil produces a disease and no one complex gives rise to an anxiety state. Disease, whether mental or physical, is the result of an unfortunate combination of underlying and immediate

causes. This is especially true in cases in which the anxiety syndrome occurs.

Searching for the cause of the individual's anxiety should be deferred until the patient is better. In the first place the real cause may not be found; secondly, if found often nothing can be done about it; and, in the third place, the procedure nearly always makes the patient worse. If the patient knows the cause of the trouble he will tell it, now or later. If he does not know it, be sure that he is strong enough to withstand the shock of revelation. In the beginning of treatment it is sufficient to explain to the patient that the anxiety state is a well understood phenomenon, that the causes which he fears have given rise to the condition probably have nothing to do with it, and that his conviction of danger is only the result of rationalized fear. Let the process of unearthing the psychological causes of the anxiety state rest until the patient is better — frequently, by then, these ghosts will have disappeared — for some of the phantoms of fear are like the hallucinations of delirium, they are only the result of sickness. In other instances the psychological complexes underlying the illness must be faced when the patient is better and strong enough to meet them.

Confidence is an important factor in treating anxiety. The patient must be given confidence in the treatment which he receives — he needs a doctor in whom he believes, and it helps for the doctor himself to be confident that he can relieve the patient. Confidence is contagious and an anxious patient needs to be exposed to a lot of it. These people have lost confidence in themselves — for the time being they need a Jehovah in whom they can put their faith and it is with the help of a physician in whom they have faith that they regain self confidence.

Reassurance is the second important factor in treating anxiety. Constant, repeated, never-failing reassurances must be given the patient by the doctor in new and increasingly convincing forms. The patient's belief in the doctor, together with the physician's never failing, positive reassurance as to complete and early recovery, frequently paves the way to recovery.

The patient needs the strengthening comfort of daily unhurried interviews with the physician. A light touch, a sense of humor, and an apt phrase on the part of the physician do much to allay the patient's concern. One must reason with such



patients but reason alone does not suffice; they are much more likely to remember and use a comforting catch-phrase or motto.

The nature of anxiety should be explained to the patient; he must be convinced that his fear constantly lies to him, and that anxiety once aroused attaches itself to whatever it can find. The anxious person possesses, as it were, free-floating fear which in turn becomes attached to almost anything he may think of. Thus the patient understands the normality of fear, realizes that it can not injure him, and that it has no significance since it is due to sickness. In brief, the patient is to be taught to understand and discount both the significance and the discomfort of anxiety. He learns that temporary tolerance decreases suffering and hastens recovery.

People who are suffering from anxiety are governed almost entirely by their emotions. Usually they possess intelligence which they are not employing. As is the case with other emotions, anxiety is reduced by the use of intelligence. It is therefore advisable to prescribe intellectual tasks as a part of treatment. Newspapers, magazines, and good books are useful, but, better still, prescribe some mental hygiene reading which can be objectively discussed with the patient, and make him feel that he actually has some mental tools with which he can combat his difficulties. When the patient says, "I have tools with which to fight my fear," the battle is two-thirds won.

An important part of treating anxiety is the training of the patient to live with it, and by so doing to gradually overcome the fear of being afraid. He must understand that there is no real danger and that he must tolerantly accept this discomfort as he would an unpleasant organic symptom. He must put his intelligence to work, practice concentration in objective ways, and in spite of symptoms, resume a normal (even though it be a modified) manner of life. The patient must then be helped gradually to meet some of the specific situations which frighten him. Individuals suffering from anxiety states have usually acquired a number of phobias. The patient must be helped to do those things of which he is afraid, that he may regain his self respect. In so doing he discovers that the mental hygiene reeducation works — he gains confidence in it and in his ability to use it. A frightened man feels safer if he has a means of defense; an

anxious patient is better when he knows that he has mental tools which he is competent to use.

Such an approach as this in treating anxiety constantly strengthens the individual, and although it is based on the principle of the doctor's giving the patient a sense of protection and security until he is well, it does not lead to dependence; instead, he is taught to an independence which he is only too eager to practice.

**Prophylaxis.** As for prophylaxis, the best time to treat an anxiety state is before it begins — and the next best time is at its immediate inception.

Years ago the physician paid little attention to the fact that a well patient had bad teeth — today the doctor emphatically insists that his patients practice dental hygiene. And when the physician today finds a patient with a bad psychic set-up, he must see to it that the patient learns and practices better mental hygiene.

One can pick out the people who are most apt to have an anxiety attack. They are basically apprehensive and sensitive. They have not been trained to withstand fear. As a rule they are overly serious people who have few or no hobbies or outlets outside of their work. Here is a real and neglected opportunity in preventive medicine. The following would do much in the prophylaxis of anxiety.

1. Apprehensive persons should understand the nature of fear and learn to live dangerously.
2. They must be taught to discount their sensitiveness.
3. They, more than most people, need the security of accomplishment and must therefore live an objective, well-balanced life.
4. They must harden themselves to fear by doing things of which they are afraid.
5. They must not allow themselves to grow "soft."
6. They should learn to play and to cultivate several hobbies.
7. They need regular vacations more than do most people.
8. They must find a sustaining, reassuring and not too harsh, philosophy of life. They need a God — but one who laughs.

Sometimes anxiety states, once well begun, must run their course, but often they can be cured at the moment they arise. The only medical man who has this opportunity is the family doctor. Explanation, reassurance, a good sug-

gestion and outlining a wise regime --- all done in the nick of time by the family doctor, have saved many patients months and even years of suffering.

### FREUD'S HYPOTHESIS OF ANXIETY

Marian C. Putnam, M.D., New Haven

According to Freud's hypothesis, anxiety functions as a signal of danger to the ego. The ego is exposed to danger from three sides: (1) the external world, (2) the id, (3) the superego.

At one time Freud described the development of the personality from the topographical standpoint somewhat as follows. The infant is born into the world with a mass of innate impulses and desires which together make up the id. As the infant grows older and experiences the external world and his feelings from within, he develops certain expectations from them and modifies his behavior in terms of these expectations. This differentiated portion of the id is called the ego.

After a year or two the child becomes increasingly aware of the demands and prohibitions of the outer world, particularly those of the parents. In order to retain the love and approval of his parents, the child conforms to these demands in varying degrees. Gradually the standards established by the parents become incorporated into the child's personality as his conscience, and this portion is called the superego. In this complex group, the ego occupies a central position which must take cognizance of the impulses from the id and the dictates of the superego, and the dangers and demands of the outer world.

The dangers emanating from the outer world are easy for us to understand: automobiles may run over us, fire devour us. It is the function of the ego to perceive these dangers and avoid them. Dangers from the id and the superego are also perceived by the ego as coming from the outer world, which often seems to us quite irrational. As an example, a two-year-old child has a strong urge to investigate his environment, to climb, to touch, to manipulate, but since these activities are often dangerous or at variance with the wishes of the mother the child may be thwarted in his desire and punished. This infuriates him, and he may retaliate by wishing to destroy the mother who has thwarted him; at the same time he loves his mother and is completely dependent on her for his comfort and

happiness. When she leaves the house he screams and behaves as if in terror that she may never return. Since she has never left him for more than an hour or two, we must suppose that he is afraid that his own aggressive wishes may come true, that as a punishment for these wishes or for his disobedience, his mother will withdraw her love or her presence completely. Thus we see that an aggressive reaction to a thwarted impulse from within results in anxiety, the fear of loss of love, or, in other words, anxiety directed toward a danger from without.

Since the sexual urge may be very intense and particularly forbidden, we find acute anxieties arising at those periods in a child's life when the sexual urges are most intense, that is, roughly, at the four or five year old period or at puberty, sometimes again in the climacterium.

It is obvious in the light of all this that the superego frequently gives rise to anxiety, representing as it does the parental authority and fear of punishment. Most of the time, indeed, the danger threatens from all three sides at once, and we find the ego in that anxious position of trying to reconcile in as harmonious and advantageous way as possible the many conflicts arising from these three sources. This is perhaps nowhere more vividly and charmingly described than by Thomas Mann in his essay on the occasion of Freud's eightieth birthday.

The above description of the topography of the personality, as well as the description of anxiety, is oversimplified. For a fuller and authoritative statement, the reader is referred to Freud's "New Introductory Lectures."

Thomas Mann writes: "As for the Ego itself, its situation is pathetic, well-nigh alarming. It is an alert, prominent, and enlightened little part of the Id — much as Europe is a small and lively province of the greater Asia. The Ego is that part of the Id which became modified by contact with the outer world; equipped for the reception and preservation of stimuli; comparable to the integument with which any piece of living matter surrounds itself. A very perspicuous biological picture. Freud writes indeed a very perspicuous prose, he is an artist of thought, like Schopenhauer, and like him a writer of European rank. The relation with the outer world is, he says, decisive for the Ego, it is the Ego's task to represent the world to the Id — for its good! For without regard for the superior power of the



outer world the Id, in its blind striving towards the satisfaction of its instincts, would not escape destruction. The Ego takes cognizance of the outer world, it is mindful, it honourably tries to distinguish the objectively real from whatever is an accretion from its inward sources of stimulation. It is entrusted by the Id with the lever of action; but between the impulse and the action it has interposed the delay of the thought-process, during which it summons experience to its aid and thus possesses a certain regulative superiority over the pleasure principle which rules supreme in the unconscious, correcting it by means of the principle of reality. But even so, how feeble it is! Hemmed in between the unconscious, the outer world, and what Freud calls the Super-Ego, it leads a pretty nervous and anguished existence. Its own dynamic is rather weak. It derives its energy from the Id and in general has to carry out the latter's behests. It is fain to regard itself as the rider and the unconscious as the horse. But many a time it is ridden by the unconscious; and I take leave to add what Freud's rational morality prevents him from saying, that under some circumstances it makes more progress by this illegitimate means."

### COMMUNITY ASPECTS OF ANXIETY CONDITIONS

George K. Pratt, M.D., Westport

Whether the physician gives allegiance to that school of thought which states the basic causes of anxiety states are inner or endogenous, or to the other which emphasizes the etiology of external causes, there is wide agreement that the impact of the community on the anxious patient is used by him to color and even to determine the nature and direction of his symptoms. It is important for the welfare of the patient that his physician recognize this. Men and women suffering from anxiety states — not less than patients grappling with other psychiatric conditions — need to find a reason in their external environment to explain their symptoms that they may be spared the fear of facing a specter from within themselves. Under these circumstances it is both understandable and commonplace for the patient to select without conscious recognition certain experiences that have actually happened to him in the community to account for his fears.

A striking example of this is furnished by the community effects of the economic depression. During recent years physicians have noticed a mounting number of anxiety states in which the symptoms center almost wholly around the patient's economic or employment problem. Men and women of this type insist — with all conscious honesty — that their anxiety concerns only their reduced income or loss of a job, and they are certain that augmented income or employment is the sole solution for their difficulties. Their explanations for their fears and their self-diagnoses are apt to be so plausible and there is certain to be such a large grain of factual truth in the matter, that it is no wonder numerous physicians are misled into agreement with the patient without searching deeper for the basic etiology. It will be of help to physicians, therefore, to realize that in anxiety states — as in most other psychiatric conditions — the patient is automatically blocked from discovering the true sources of his maladjustment unless helped by the technical skill of his physician. It is for this reason that one would suggest that the family doctor in particular not be hoodwinked by his patient's use of a plausible factual situation as a peg on which to hang the full explanation for his anxiety symptoms. A study of the patient's personality will almost invariably disclose other and deeper factors totally unrelated in most instances to the apparent external cause.

The community and the patient's use of community experiences has another effect upon his anxiety condition. Living and participating in community life imposes obligations on every one of us; an obligation to which the anxious patient is by no means immune. The community expects a measure of reciprocity and team-play from its constituent members. If one of these is suffering from an anxiety state which causes him to become unable to discharge satisfactorily this community obligation, then his community status is altered; his acceptance by the community is lessened and this in turn leads to a further reduction in his sense of security, with resulting accentuation of his anxiety symptoms. An acceptable degree of emotional security is essential for mental health and, conversely, a lessening of this security imposes strains upon mental health and adaptive capacities. The very symptom of anxiety itself points to a sinister threat to security, and the whole question of



emotional security thus becomes of more vital significance to the anxious patient than to almost any other. To feel emotionally secure calls for the cultivation of two firm convictions: one, a realization that we "belong" to the group of which we are a part, and in addition that we are accepted by this group. In childhood such a group usually means one's family and neighborhood and school groups; in adult life it includes additionally one's shop or office group, one's church group, club groups, etc. The second realization essential to a feeling of emotional security is the knowledge that we can accomplish something through our own efforts which will bring us merited recognition and approval from society (the community). Any factor therefore which impairs the strength of either of these two convictions threatens normal security, and anxiety — among other symptoms — arises.

If a patient's anxiety symptoms take such a direction as to cause him to withdraw either wholly or in part from community activities, to become conspicuous and the object of comment as a result of his fear of participating in community affairs, or to become inefficient in that work which the community expects from him, then the community is apt to withdraw its acceptance of the patient and to withhold its recognition of his accomplishment. Thus, the patient is given some measure of factual support for his need to conclude that his fears and anxieties have their roots imbedded wholly in an external situation.

In the management of every case of anxiety there is need for the doctor to investigate what his patient's attempts to maintain contacts with the community does to the patient. He finds it necessary also to evaluate what additional strains a continuing contact with the community imposes upon the patient's adaptive machinery. The physician will have to determine whether such contact augments and magnifies the anxiety symptoms or whether — more rarely — it lessens them through opportunities to drain off tension. Such a determination on the part of the physician brings up a difficult question for decision: Shall he encourage the patient whose anxieties cause him to wish to withdraw from community activities, to maintain these contacts at the risk of producing further tension and anxiety, or shall he acquiesce

in the patient's progressive seclusion in the interests of reduced exposure to adaptive strains? Granted that anxious patients understandably seek to narrow the areas of their lives which may augment anxiety, and granted also that such patients seek gradually to live a centripetal rather than a centrifugal existence (i.e., narrowing their lives from the periphery inwards, instead of the healthier pattern of expanding outwards from the central nucleus of their personalities), it is always necessary to determine whether it is best to urge further community contacts or to permit an abandonment of them.

Still another way in which the community plays a role in the production and management of anxiety states is found in the problem presented by the anxious patient who still continues at his daily work. This is particularly important if the patient occupies a type of job that brings him into close and cooperative contacts with other people. Because of his symptoms of irritability, vacillation, indecision, fatigue, etc., the effect of these on co-workers may bring about not only a lessening of the patient's own job efficiency but also may produce friction and lowered efficiency all the way along the line. One finds this particularly true of anxious patients who are business executives with numerous subordinates working under them, school teachers, foremen and supervisors in factories. More than one study of the mental hygiene of industry has disclosed problems of mass or departmental tension with a resulting loss of efficiency, production and morale, traceable to the effects on personnel of the boss' anxiety symptoms.

This same problem is encountered in the home of the anxious patient. Members of his family are certain to be affected by his symptoms in one way or another, and the consequent result has an indirect effect on the community. It is almost impossible for the husband, wife, parents or children of the anxious patient to avoid carrying over from the home into some portion of the community the unwholesome effects of the tension, exasperation and other symptoms produced in them as a consequence of daily living with the patient.

The physician, therefore, will find it an incapable part of his obligation to his patient to interpret adequately the nature of the patient's symptoms to both family and business associates. It is especially important for the physician

to assume this responsibility at the time when his patient first begins to withdraw from accustomed activities (movies, bridge games, club groups, social visiting, etc.) in order to forestall social criticism, destructive gossip, misunderstanding, condemnation or other unjust community attitudes.

If the treatment of the patient's condition is undertaken while he remains in his home, there is no way to avoid taking into account the influence of the community on the patient, as well as the influence of the patient on the community. No program of treatment — no matter how technically correct — can be entirely adequate unless the physician recognizes clearly the interaction of these two-way forces, nor can the hope to reach the basic roots of his patient's problem without realizing the tendency of the latter invariably to conceal and overlay the true causes with a patina of plausible but nevertheless misleading explanation. In his need for interpretation of his patient to the community and vice versa, the physician frequently will be helped if he will avail himself of the services of community mental hygiene programs and personnel in the interests of better mutual understanding.

### SUMMARY

Oskar Diethelm, M.D.

Physiological treatment of anxiety is used by many internists and Dr. Gildea's discussion is, therefore, most illuminating. Barbiturates, e.g., are excellent sedatives in anxiety states, especially when offered in repeated small doses. This might be explained by their supposed subcortical action and brought in connection with the thalamic localization theory of anxiety. Others who believe in a cortical representation, might feel justified in using cortical sedatives such as bromide. To advocate surgical interference because the frontal lobe is claimed to play an important role can hardly be defended. To control the vegetative nervous system, ergotamin is advised and frequently found helpful. Hydrotherapy, especially prolonged warm baths and cold wet packs, exert a similar beneficial influence.

It is essential that treatment be based on a correct grouping of facts with separation and careful evaluation of what is essential and what is merely incidental. This diagnostic formulation has been presented by Dr. Preu and offers re-

quired indications. It is necessary to consider the possibility of a depression which is not easily recognizable, with its suicidal dangers; an early schizophrenic reaction; hyperthyroidism and other somatic diseases.

As Dr. Terhune stressed in his detailed and highly practical therapeutic outline, one should resort to the use of drugs in only a few cases and for a brief period of time. Physiotherapy is valuable but should be considered merely an addition to the main procedure which is psychotherapeutic: reassurance for the acute and repeated attacks and for the resulting discouragement; a well planned routine which will keep the patient occupied and distracted and includes recreation; re-education of the faulty habits of self-observation and anticipation; and, above all, an analysis of the individual personality and its life history, leading to a removal of causes or adjustment to them.

The need to study the social factors especially, for their correction as well as therapeutic utilization, was emphasized by Dr. Pratt. He brought in the broad aspects of group integration. These considerations should never be overlooked in the treatment of any personality disorder. The therapeutic goal is always to make the patient a self-reliant person who is a well adjusted part of the group.

The stimulating psychoanalytic theories were discussed in such a clear form by Dr. Putnam that any reformulation would be rather complicating than simplifying. It may be desirable, however, to stress Dr. Putnam's statement that we deal with an hypothesis. Too frequently theories are mistaken for facts, especially in psychiatry, unjustified claims made, and dogmatic treatment based on them.

One might summarize the various opinions by stating that our treatment should be based on sound physiologic and psychologic conceptions, guided by indications which arise from a factual diagnostic formulation. The actual treatment consists in working with all possible means of correction, paying attention to somatic treatment but with special attention to psychotherapy, with due consideration of social factors and their modifiability.

### CONCLUDING REMARKS

Dr. Eugen Kahn

The psychoneuroses so-called are, as Dr.



Diethelm formulated this morning, "Disorders of the personality not of the nervous tissue." There is a consensus of opinion that this is so; there is no doubt that it is the case with the anxiety conditions, whatever their physiological background and their possible relations to various areas of the central nervous system may be.

Since, however, physiology is involved in anxiety, it is perfectly plausible once in a while therapeutically to attack anxiety from the physiological side. It has been sufficiently emphasized by the panellists that whenever possible — and it should always be possible — in anxiety conditions the whole person ought to be treated. This statement holds equally true for any pathological condition, and we may hope that after due time it will be commonplace in medicine.

The physician sees his patient as an individual; as an individual, of course, who is a member of a group and who in many ways is exposed to all manner of influences from the part of this group. Just because the physician is wont primarily to see the pathological aspects of phenomena manifested by his patients, it becomes more and more important for our profession to realize that there is another side of the picture. What we, in a number of medical situations, may consider pathological or dangerous or negative, may have a definitely positive side. This I am sure is the case with anxiety as we look at it as a phenomenon transgressing the orbit of the individual. Man is born into and has to live in a rather insecure world. He experiences this insecurity and consequently experiences anxiety — insecurity produces anxiety and anxiety increases insecurity. Anxiety develops into a defense mechanism of growing importance. It becomes a mechanism which the social group learns to use for their defense inside and outside. All kinds of regulations, moral codes originate from anxiety. Taboos refer to anxiety; they concretize and later symbolize experiences which, by virtue of their cultural content, are to be feared and avoided.

In other words anxiety, from the social and cultural point of view, is a force of great constructive significance. This does not mean that the past and future history of the human race is based on fear alone. There are forces that originate and work without any connection with

anxiety or fear. But the significance of fear still stands, and its social-cultured import ought not to be overlooked by the physician.



#### A. M. A. RADIO PROGRAM FOR JANUARY AND FEBRUARY

##### Contagious Diseases

January 5 — Sneezes and Sniffles. Cause, spread, prevention of colds, pneumonia and influenza; importance of early medical care.

January 12 — Scarlet Fever, Measles and Whooping Cough. Modern attitudes towards these diseases; their prevention by community cooperation.

January 19 — Smallpox and Diphtheria. Unnecessary diseases; preventable by immunization of infants.

January 26 — Poliomyelitis. Information about the disease; cooperation with President's Birthday Ball.

##### Preventing Future Illnesses

February 2 — Rheumatism and Arthritis. Known factors in the causation of arthritis and its care.

February 9 — Healthy Hearts and Arteries. Known ways of protecting the heart against infection and hygienic abuse; how to live with disease.

February 16 — Don't Fear Cancer - Fight it. Known factors in the cause, prevention and treatment of cancer.

February 23 — Overcoming Diabetes. Individual efforts plus medical aid will win against diabetes.



#### COMING MEETINGS

January 16-20 — American Academy of Orthopedic Surgeons, Hotel Biltmore, Los Angeles.

January 15-31 — Seventh Cruise Congress, Pan American Medical Association, Cuba and the West Indies. Dr. J. J. Eller, Director General, 745 Fifth Avenue, N. Y. C.

April 4-8 — The American College of Physicians.

May 4-8 — International Congress of Obstetrics and Gynecology, Amsterdam, Holland.

October 17-21 — Clinical Congress of the American College of Surgeons.



#### WRITTEN EXAMINATION

The American Board of Internal Medicine will hold its next written examination on Monday, February 14, 1938 in various centers of the United States and Canada.

The examination will consist of two sessions of three hours each with the morning session held at 9:00 o'clock A.M., and the afternoon session held at 2:00 o'clock P.M.

The candidates who are successful in this written examination will be eligible to take the practical examination which will be held in San Francisco the Friday and Saturday prior to the opening of the Annual Session of the American Medical Association in June, 1938.

The final date for filing applications for this written examination is January 15, 1938 and all applications should be in the office of the chairman before that date.

For further particulars and application blanks please address — Dr. Walter L. Bierring, M.D., *Chairman*, American Board of Internal Medicine, Suite 1210, 406 Sixth Avenue, Des Moines, Iowa.



# Treatment of Various Types of Anemias<sup>\*</sup>

WILLIAM B. CASTLE, M.D. Boston

There are five methods of treating patients with anemia:—transfusion, splenectomy, X-ray, arsenicals and substitution therapy such as liver, stomach and iron preparations.

Transfusions are indicated: (a) when the blood volume is so low that circulatory failure threatens. The concentration of red cells is not necessarily decreased, as in acute hemorrhages; (b) when the hemoglobin content of the blood is so low that oxygen carriage is inadequate. This is usually at a very low level for low hemoglobin in itself is well accommodated in chronic conditions; (c) when plasma proteins are so far decreased as to cause edema. This occurs especially in aplastic anemias and aleukemic leukemia; (d) when it is necessary to check a hemorrhagic tendency, as in thrombocytopenic purpura, hemophilia or benzol poisoning. In these patients, local measures to stop the bleeding often produce necrosis. Transfusions are indicated for prophylactic as well as therapeutic reasons in any disease with decreased platelets or prolonged clotting time. Transfusion does not stimulate bone marrow except insofar as it adds the building materials for new cells, for which purpose oral iron is cheaper and more rapidly effective.

Splenectomy is markedly successful only in familial congenital jaundice, where it may be performed even during a crisis. These cases exhibit increased red cell fragility, but no lack of iron or bone marrow efficiency. However, since the spleen normally conserves the breakdown products of the red cell, splenectomized patients should take oral iron to avoid future development of hypochromic anemia.

The mortality following splenectomy in acute thrombopenic purpura is very high. The results in the chronic cases are less clear. Some authorities obtain just as good results by temporizing with the use of transfusions, vitamins and so forth.

Banti's syndrome usually produces an anemia of the iron deficiency type. Splenectomy produces no specific effect on the bone marrow but may be indicated when the spleen is very large or there are repeated hematemeses. Varices at the oesophageal end of the stomach may decrease in size after the operation.

X-ray therapy is used more successfully in anemias due to invasion of the bone marrow by leukemia, especially in the early stages, than in anemias due to invasion by metastatic carcinoma. The success of irradiation depends on the invading cells being more radiosensitive than the red cells. The aleukemic phase is no contraindication to such treatment. When the proper type of high voltage X-ray is not available, chronic myelogenous leukemias may be treated with increasing amounts of Fowler's solution to maintenance dosage.

Liver extract is used with benefit in macrocytic anemias. Beside the usual primary Addisonian type, certain cases of chronic diarrhea are included in which a peculiar kind of malnutrition exists. Some cases of carcinoma of the stomach with macrocytic anemia fall in this group. Subacute combined degeneration may be arrested by liver therapy.

In the future, liver extracts will be standardized according to the potency of the preparation, not, as before, according to the original amount of liver from which the extract was made. One unit will be that amount which, when given daily, will produce an adequate reticulocyte response. The weekly intramuscular dose will then be seven units.

Secondary anemias associated with a low color index will usually respond to oral iron. This group is common after blood loss, in periods of rapid growth with extension of the blood volume, and in pregnancy. Ferrous iron is more effective than ferric preparations, and the peroral is more effective than the parenteral route.

<sup>\*</sup>Abstract of paper presented at 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.

# Treatment of Acute Appendicitis in Infancy and Childhood\*

PETER J. SERAFIN, M.D., M.Sc., New Haven

The purpose of this paper is to present recent literature on acute appendicitis in children and to emphasize certain diagnostic and therapeutic points.

Inflammation of the appendix may occur any time from birth to old age. It is rare in infancy, more frequent in childhood, common in adolescence and gradually declining in advancing years, however, no age is immune from it. There are authentic cases on record of acute appendicitis occurring the first few hours after birth. The youngest case is that of Kummel in which an autopsy on an infant dying twenty-four hours after birth disclosed a gangrenous appendix as the cause of death. Abt in 1917 collected seventy cases of appendicitis below the age of two, twenty of which were under three months, and one-fourth of which cases were diagnosed only at autopsy. Smith's statistics based on the autopsy records of two hundred consecutive infants dying with gastro-intestinal symptoms and malnutrition found acute involvement of the appendix as the chief lesion in fifteen cases; the age of these infants ranged between thirteen days and two months.

When occurring in infancy and early childhood, acute appendicitis is one of the most difficult diseases to diagnose and one of the most serious in consequence of all abdominal conditions.

A recent report of the Metropolitan Life Insurance Company indicates an appalling rise in mortality in children under twelve years of age. For the years 1925-1929 this rise is approximately sixty per cent in comparison to the 1911-1916 Period. From the United States Public Health Service Report it appears that appendicitis including all age groups is the fourth greatest cause of death excluding accidents. Farr states, "To our shame, it must be said, that the mortality of acute appendicitis in children taken the country over, runs nearer to ten than five per cent."

It is a mortality due to ignorance and procrastination on the part of parents, or to mistaken diagnosis and delay in operation on the part of the physician. We must remember that the time between the onset of the disease and rupture of the appendix in children may be very short. Therefore, it becomes a very dangerous policy to wait for acute symptoms to develop. Reports from various clinics indicate that ruptured appendix and spreading peritonitis may develop within eight hours of the first symptoms of the attack. Pooled statistical series indicate that mortality in acute appendicitis runs as high as fifteen per cent and in ruptured and gangrenous appendicitis it is even higher. Therefore, a strenuous educational campaign seems necessary to impress the profession and, in turn, the laity concerning the gravity of this problem.

In most abdominal conditions occurring in children it is customary for the parents to give, and for some physicians to prescribe cathartics especially when a cursory examination of the patient does not reveal the classical symptoms of acute appendicitis. However, a typical textbook picture of symptoms and signs is seldom met with in actual practice. Therefore, this noxious habit of administering catharsis should be eradicated for it is a statistical fact that purgation is the shortest route to perforation.

Deaver states that in acute abdominal conditions the appendix should be considered first, last and always; in other words, we must always be "appendix conscious".

Because of the inability of infants to speak, and because of the unreliability in localizing pain in young children, little or no assistance can be obtained from them. Hence a very careful history must be obtained from parents as to actual onset of loss of appetite, vomiting, or diarrhea and fretfulness. It is with greatest care that one must gather such information as regards history, symptoms and signs.

\*From the Department of Surgery, Grace Hospital, New Haven, Connecticut.



Objectively the physical signs may be negative or difficult to elicit and, therefore, more difficult of interpretation. Hence the diagnosis may be missed, often delayed, and its true nature not appreciated. This may be due to the insidious onset of illness, or co-existing other ailment causing the symptoms of acute appendicitis to appear indefinite. A previous dietary indiscretion may contribute to this difficulty.

Anatomically certain difficulties present themselves. In infancy and early childhood the distal portion of the appendix may be found in any location along the ascending colon, hepatic or even splenic flexure. This is due to the variable degree of rotation and descent of cecum. Usually it is slightly higher than the classical McBurney's point. The appendix in children is relatively longer, of funnel shape, its wall is thinner, and its meso-appendix much shorter than in adults, all of which predispose to frequent kinks and to strangulation. Furthermore, the wall of the appendix contains a relatively larger amount of lymphoid tissue than in adults. The omentum in infancy and childhood is short, very thin and devoid of fatty tissue, and therefore cannot envelop or wall off the appendiceal lesion as it may in adults.

Due to the great amount of lymphoid tissue and thinness of the appendiceal wall the onset of the disease is more insidious and the spread more rapid; there is greater tendency to perforation, and the toxicity may be more pronounced. Many cases of so-called indigestion, acute gastroenteritis, or mesenteric adenitis may, in reality, have been cases of acute appendicitis with spontaneous recovery, if the lesion was located at the base or funnel portion of the appendix.

The symptoms of acute appendicitis in children are variable in their intensity, duration and sequence. Usually there is loss of appetite followed by vomiting or diarrhea and pain in any portion of the abdomen. This pain may vary as to its intensity depending on the pathological process existing at the time of examination. The pain may be slightly cramplike in early stages, becoming steady, continuous and more severe in later stages. Its location may vary, depending on several factors. Due to incomplete rotation and descent of the cecum, the location of the appendix and the corresponding tenderness may be anywhere in the course of the ascending colon, hepatic or even splenic flexure. Furthermore,

because the appendix in infants and children is relatively longer than in adults, the tip may be found in any portion of the abdomen, and the pathological process may involve the base, the middle or the tip portion of the appendix. The location of the pain as pointed out by the child and the site of tenderness as elicited by physician are, therefore, variable.

It is customary to classify the pathological process present in these cases into three grades: (1) Endo-appendicitis with lesion limited to the mucous membrane; (2) Mural appendicitis, the lesion involving the wall with edema, lymph block and subsequent emboli; and (3) Para-appendicitis, the lesion involving all coats and rapidly spreading, leading to peritonitis. If the lesion is limited to the base of the appendix the abscess may rupture spontaneously into the cecum and prompt recovery may follow. When the inflammation is located in the middle or the distal portion of the appendix gangrene and abscess formation may follow; the train of symptoms may be fulminating. This is especially so because the wall of the appendix is thinner, and possessing a great amount of lymphoid tissue, therefore, the suppurative process is faster and perforation occurs sooner than in adults. Because of the shortness of the omentum, the omental walling off process is absent; consequently spreading peritonitis is common in children. When infection spreads beyond the appendiceal region we have a far more dangerous condition to deal with than the original one.

The presence of vomiting and elevation of pulse occurs in many diverse conditions, therefore, no great diagnostic importance can be attached to them. However, the presence of local tenderness and muscular rigidity is of the greatest importance. Muscular rigidity depends on irritation of the parietal peritoneum which is segmentary in nature and thus limited in its extent. Occasionally a ruptured retrocecal or pelvic appendix will not present such rigidity, but tenderness may always be elicited. Actually the presence of tenderness and rigidity are the chief diagnostic signs of importance in acute appendicitis in children.

The physical examination in children must be of necessity fragmentary and never as systematic as in adults. The physician should note whether the face is pinched, anxious, pale and toxic; whether there is costal or abdominal



breathing; whether the abdomen is relaxed, scaphoid or distended; and the presence or absence of peristalsis. One must be very gentle in gaining the child's confidence. With warm hands and delicate palpation one may elicit tenderness, muscular spasm or rigidity and, also, limitation of motion in the right hip. Previous observation may reveal that the child lies on the right side. A gentle rectal examination may reveal local tenderness or swelling on the right side. In later stages constipation is present in ninety per cent of cases because of the inhibitory action of infection on the peritoneum.

When there is a least suspicion of appendiceal involvement the patient should be removed to the hospital for further study. Meanwhile, we should establish the fluid balance by the continuous intravenous solution of normal saline and five per cent of glucose. These patients due to vomiting and limited fluid intake, are dehydrated and, therefore, cannot stand operation well. The glucose intake must be very carefully adjusted to the needs of the patient. Urine analysis should eliminate any question of pyelitis especially in girls. Occasionally, if the appendix is lying over the right ureter, red cells in the urine may be found. A blood count, white and differential, is important as corroborative evidence, but undue emphasis should not be placed upon it. Positive clinical evidence is of greater importance than negative laboratory findings.

Differential diagnosis may be very difficult especially in infants. Careful examination of the thoracic cavity should be made to exclude congenital affections, pleural, pericardial, mediastinal or diaphragmatic inflammation; and the first stage of central or lobar pneumonia. Careful examination will also exclude acute gastroenteritis, acute mesenteric adenitis, abdominal tuberculosis, inflammation of Meckel's diverticulum, intussusception, and obstruction due to foreign bodies, endogenous or exogenous. Other conditions to be remembered are duodenal ulcer, cholecystitis, psoas abscess, salpingitis in females, inflamed omental or mesenteric cysts. This list is by no means inclusive for appendicitis may occur coincidentally or subsequently to any disease. This is especially true in tonsillitis, measles or influenza. Cases on record show acute appendicitis complicated by intussusception, mesenteric adenitis, Meckel's diverticulum and incarcerated hernia. In addition there may be

present a previous inflammatory condition of the appendix with adhesions, and kinking and distortion of the appendiceal blood vessels. This may readily produce chronic recurrent abdominal pain with the symptoms of indigestion or chronic gastro-enteritis.

Once the presumptive diagnosis of acute appendicitis in children is made immediate operation is indicated. Expectant treatment is dangerous because there is but little chance of a walling off process taking place. In the presence of toxemia and dehydration any further delay will deplete the patient's resistance with an inevitable probability of early exitus. Infants and children do not stand prolonged operative procedure, therefore speed but not haste is indicated. McBurney's gridiron incision is preferred for it allows proper packing off of small intestines without probability of contamination. Gentleness and greatest care in handling the tissues must be maintained. In the ordinary acute appendicitis removal of the offending organ without inversion of the stump is sufficient and no drains are used. All bleeding points must be well secured for children do not stand appreciable losses of blood. In ruptured gangrenous appendicitis with localized abscess formation, Penrose drains may be used. Drainage in spreading peritonitis is of little value for an increasing number of intestinal loops are being glued together thus making drainage ineffectual. In cases that are drained it is better not to suture the fascia for in this way infection of the abdominal wall and subsequent hernia may be prevented.

In appendicitis of longer standing with abscess formation no attempt should be made to remove the appendix if it is very adherent or retrocecal. Such procedure may break down whatever protective barrier there is. It is better to leave such an appendix in situ for future surgery. In the presence of threatened intestinal obstruction cecostomy or ceco-ileostomy is indicated and this procedure is life saving in some cases.

Peritonitis, though frequent, is not the all important complication of appendicitis in children but rather the toxemia which accompanies the disease and against which temporizing measures will not prevail. Various procedures are advocated to prevent spread of peritonitis, discussion of which would be superfluous here. However, Colp's proposal of ligation of the

affected veins to prevent thrombophlebitis is worthy of note.

The postoperative treatment in these cases is of great importance. Trendelenburg position until all drainage ceases, nothing by mouth except chewing gum or a lollipop were acceptable, and frequent moistening of lips and mouth wash are important measures. Well padded restraints are applied whenever necessary. Paregoric may be pushed to its maximum, the rate of respiration being the best guide as to its proper dosage. Lowering the rate of respiration by one-fourth the normal is the optimum amount. Abdominal heat is applied and may be very beneficial in preventing the spread of peritonitis. Normal saline with five per cent glucose should be given by the intravenous route. In children the internal malleolus vein is the site of choice. The vein may be exposed and incised during or after operation under local anaesthesia and a small cannula inserted and secured with a silk ligature. The rubber tubing is anchored with adhesive to the foot and the latter is wrapped in a pillow fastened with bandages. In this manner the intravenous solution regulated to ten, twenty or thirty drops per minute, according to the age of the patient can be given continually for two, three or even four days without difficulty.

Occasionally there may be a slight redness along the external saphenous vein which will readily subside under wet boric acid compresses. In more severe cases the cannula may be transferred to the other leg. After serving its purpose the cannula is removed, the silk ligature united and wet boric acid compresses applied.

The amount and the speed of the intravenous therapy must be very carefully calculated according to the age and needs of the patient. As before stated the vascular bed in children is more delicate and more liable to overdilatation than in adults. Bearing this in mind, the author has devised a small electric pump capable of regulating the size of drop and the speed of introduction so that the patient may receive ten, twenty or thirty drops per minute under positive pressure continuously for several days. Because of the proper positive pressure the possibility of blood clotting is eliminated. The apparatus is simple and readily portable. In the presence of vomiting and spreading peritonitis a Levine tube is introduced into the stomach and the Wangen-

steen apparatus is attached for continuous suction.

With this method of treatment proper fluid intake may be maintained, dehydration, acidosis and toxemia prevented and the vascular bed not overdilatated. In the more toxic cases daily blood transfusion in small amounts is indicated.

### Conclusion

A review of recent literature is here presented emphasizing the more common diagnostic and therapeutic measures in acute appendicitis in children.

The importance of careful diagnosis in any acute abdominal condition in infancy and childhood is emphasized.

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Application blanks are now available for space in the Scientific Exhibit at the San Francisco Session of the American Medical Association, June 13-17, 1938. The Committee on Scientific Exhibit requires that all applicants fill out the regular forms.

Application blanks may be obtained from the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.



# A Glimpse of Scandinavian Medicine

C. W. GOFF, M.D., Hartford

Medicine in America will probably move toward socialization in its own peculiar manner. Irrespective of the position any one of us may assume, we all can agree that progress must be made only through a social justice which will preserve our relative freedom. In this regard we may profit from a glance at Scandinavian medicine.

As democratic monarchies, Sweden, Denmark and Norway have developed a progressive social policy which has attracted considerable study in the past three years. They have been at it a long time for it has taken ninety years of careful consideration to develop their Old Age Pension System and almost as long to set up and operate successfully their National Insurance Acts. The Old Age Pensions are free gifts from the public, procured through taxes. The Invalidity Pensions, on the other hand, have come from an insurance fund, based on the same principles, but paid for by the individual at so much a month. From this scheme have evolved the so-called "Sick Clubs" in which are found seventy-seven per cent of the people. These clubs are united under insurance corporations and everyone over twenty-one years of age must belong. The members receive free hospital care, medical aid, medicine, cash benefits and maternity benefits.

How does the physician benefit under this regime? The poor receive their care in the municipal and county hospitals free, just as they do in America. The physicians who treat them receive salaries, however, paid partly by the hospitals and partly by the insurance companies. These salaries are not large. The physician may also do private work. Under this system the general practitioner receives about \$1,900 a year from the insurance companies alone. Those in special practice receive as high as \$5,000 a year. All physicians may have private offices and receive fees from private patients but since there are so few who are not members of a sick club or who come under Workman's Compensation (compulsory for all employers), the field is not a broad one. In some communities, "free choice" exists

but in others, it does not. Often specialist services are furnished under contracts of service between sickness societies and the specialists. Such specialists constitute the cream of the medical profession, not because of larger fees that they might receive, but because of the honor that accompanies the position. Such a physician must have spent, after graduation, one year as an interne, two years in practice outside his special field for broadening purposes, and three years in special training for his declared specialty. He must then be passed by a committee composed of a member of the medical faculty, a specialist in his same field, the chief of staff of the leading hospital in the community, a general practitioner and a representative from the younger physicians.

While there are no legal provisions to settle disputes, nevertheless such disputes seem to be settled by the governmental authorities and physicians appear to be contented with the decisions handed down. The Minister of Social Affairs is the authority of last appeal in Denmark but he is rarely called upon for a decision. This is all very well but we may ask how do the physicians feel concerning the practicability of such schemes? The author visited a number of general hospitals and in particular the orthopedic hospitals whose roles are admittedly more closely allied with a socialization plan than perhaps some of those devoted to other specialties. Nowhere were the physicians complaining; even the youngest seemed to be happy within the system. It is true that they all hope to be chief some day and to have an additional private practice with the added income commensurate with such activities. Few can marry until they are thirty-five years of age because the salaries paid were not large. They all, however, seem to be most enthusiastic over their work. Incidentally the standard of work is exceptionally high, with all the facilities provided for by the insurance companies or hospitals. Frequent visits to other countries, provided for by grants from their organizations, keep them in touch with the best



work in Europe. Under their system, long vacations are provided for and all the advantages are present for additional study. There are many fellowships available, provided for by the State, the Companies or the Universities. Everyone with whom these conditions were discussed punctuated his arguments with the secure statement that at the end of it all he was sure of a pension amounting to about \$300 a month, plus the opportunity to engage in private practice. So you can readily appreciate that they are essentially realists.

Of course the Swedes, the Danes and the Norwegians are a relatively homogeneous group. Corruption in public office is practically unknown. Social and economic education seems to have reached all classes to such an extent that there exists an inherent regard for their democratic institutions. Hence, a progressive social policy in medicine has met with its present success. For instance, in what other country can one call the telephone operator for a physician and also ask her to arrange for a bed in a hospital? For that matter, she will also tell you the time of day, call you in the morning at a specified time, deliver a message to your husband at the office when he comes in, or even will order your groceries when the grocer's line ceases to be busy. This same spirit of service is carried out in many other fields with, of course, particular success in the consumer cooperative societies in Sweden. These societies do a business worth many millions each year and the head draws a salary of but \$5,000. Thus it appears that the quest for money is not the sole motivating factor at work in capitalistic fields any more than it is in medicine.

If you are a realist, you must know that any social change in medicine will not benefit all classes of physicians at the same time. *Laissez faire* in medicine is an axiom in which American physicians have placed their trust in the past counting on their "rugged individualism" to some how "come through." His one assumption is that supply and demand will work in spite of the complex activities of human beings in a modern world. In Scandinavia a remarkable degree of *laissez faire* has continued to exist in medicine, although Childs has called it "hot house *laissez faire*, almost under a bell jar." Is that the lesson we can learn from Scandinavia?

## CONNECTICUT MEDICAL EXAMINING BOARD

The following physicians were successful in the State Board examinations held in Connecticut in November, 1937:—

Louis De Angulis, New Haven  
Joseph F. Sadusk, New Haven  
James P. Ward, Bridgeport  
Joseph P. Connelly, Stamford  
William L. Condon, Manchester  
Louis L. Buzaid, Bridgeport  
Donald B. Moore, New Haven  
Louis F. Castaldo, Bridgeport  
Walter W. Fischer, Hartford  
Hyman D. Brier, Bridgeport  
Andrew S. Wesoly, New Britain  
George W. McMahon, New Britain  
Harry Resnick, New Haven  
William G. Young, Hartford  
Casper G. Burn, New Haven  
Courtney C. Bishop, New Haven  
Dexter Wolfson, Boston, Mass.  
R. Edward Vioni, Bridgeport  
James E. Mazzacane, Hamden  
Gershon B. Silver, Hartford  
Henry L. Tobin, Johnson City, N. Y.  
Laurence M. Tierney, New Haven  
Arnold Rilance, Shelton

—☆☆—

New York City is considering paying its hospital interns as city employees \$1,000 a year plus board and lodging. If this is done it is estimated that it will cost that city half a million dollars annually and if followed throughout the country would add \$6,000,000 to the nation's hospital bill.

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The American Medical Golfing Association's Twenty-Fourth Annual Golf Tournament will be held in San Francisco, California, on Monday, June 13, 1938, at the San Francisco Golf and Country Club.

A "Golfers Special" to the A. M. A. Meeting is being sponsored by the American Medical Golfing Association. Six games of golf have been arranged on the trip to the Coast, in New Orleans, Houston, Galveston, San Antonio, Los Angeles and Del Monte; and three on the return journey through Portland, Seattle, Vancouver, Lake Louise and Banff.

Non-golfers as well as golfers, and their ladies, are welcome on the "Golfers Special."

For full particulars on the A. M. G. A. Tournament or the "Golfers Special", write the President of the A. M. G. A., Dr. Walt P. Conaway, 1723 Pacific Avenue, Atlantic City, New Jersey; or Bill Burns, Executive Secretary, 2020 Olds Tower, Lansing, Michigan.

# Syphilis and the General Practitioner

KARL T. PHILLIPS, M.D., Putnam

Syphilis, in its primary and secondary stages, is one of the most interesting and satisfactory diseases to treat that the general practitioner meets. The future health of the patient, the health of his family and that of the community depend on the speed with which an accurate diagnosis is made and the thoroughness of the treatment.

Early diagnosis is not difficult if one always keeps syphilis in mind as the cause of sore throat, nasal discharge, superficial ulcers of the mucous membranes of the mouth, enlarged cervical or inguinal glands, generalized eruptions, superficial ulcers of the vulva, penis, or anus, discharge from under an irreducible phimosis, any irritative lesion of the genitals or nocturnal headache. Any of these symptoms may be manifestations of primary or secondary syphilis. Any of them are reasons enough for taking a blood test or material for a dark field examination.

Upon examining the records of fifteen patients with secondary and four with primary syphilis, sore throat was found to be the only symptom in seven cases, all secondary. Lesions of the lips, ranging from a small vesicle to a hard chancre one-half inch in diameter, were the chief complaints of four. A generalized rash was the chief complaint of only three. Ulcers or condylomata on or near the genitalia were present in ten cases. In this small group of cases sore throat is second only to lesions of the genitalia and it is such a common complaint that the patient is rarely concerned about it. A blood test should be taken at the first visit on any patient who has had a sore throat for ten days or more. A summary of a case will illustrate what may happen if this is not done.

E. V. had a sore throat for two and one-half weeks but was not at all disabled by it. There was a gray ulceration of one tonsil one-half inch in diameter. Diphtheria or Vincent's Angina was suspected and a culture was taken. The patient was told to come back in two days for a report of the culture and it was planned to take a Wasserman test then if the culture was negative.

It proved to be negative but the patient did not return until seven months later. He was feeling well but he had brought his eighteen year old "girl friend" in for examination because she had a few superficial ulcers on her vulva. Wasserman tests on both of them were strongly positive. Seven months had been lost and at least one other person had been infected.

When a patient is found to have syphilis in an infective stage he should, of course, be instructed as to the nature of the disease, the danger of infecting others and the importance of a complete cure. This is not enough. The source of the infection may be known to the patient and by careful questioning can often be identified. The patient's wife or husband and all the children must have examinations and blood tests. The summary that follows is an example of an attempt to trace contacts.

J. T. had a discharge from under an irreducible prepuce for ten days. His Wasserman was strongly positive. He named the source of the infection and she was sent in by the Welfare Worker from the State Department of Health for a Wasserman. It was strongly positive and treatment was started. She reported that her sister and her sister's husband had been living with her for a short time and that she probably had caught the disease from them, innocently, of course. With more help from the Welfare Worker two more infective cases were found. In the meantime J. T.'s wife and three children were examined. The wife was found to be infected but the children were not. Five persons are now under treatment instead of one.

In addition to the early infectious cases the general practitioner should remember that many cases of latent syphilis may come under his observation. The taking of blood for a Wasserman test is a simple matter and should be done as a routine procedure on all patients. If the physician will remember that syphilis has been justly called "The Great Imitator", he will soon become syphilis conscious and will find numerous previously undiscovered cases.



# Presidents' Proscenium

## A Connecticut Yankee Writes Home, Telling of a Recent Effort to Emphasize the Program of Preventive Medicine via a New Approach

CHARLES H. GOODRICH, M.D.

President, Medical Society of the State of New York

Recently we visited one of our County Societies at its annual dinner meeting where ladies were included. Invited to speak we felt that as in nearly every other important occasion in life, we should first interest and please the ladies. As soon as they were smiling approval the men would be glowing and we could launch our bolts of wisdom with the hope that auditory gates would be open and the cerebral gardens considerably hospitable.

We talked about general management and its value. We told briefly of the new business management companies at Hollywood which receive the salary checks of highly-paid stars. They evolve a scientific budget and require the star to live well within his means, even though he has several families of relatives clinging to him. They manage rent, help, supplies, parties (often vetoed by them) and everything else. The hope is that when the stars cease to shine they may not have to struggle for work as extras. We happened upon this modern note after our little talk was planned.

Next we spoke of the importance of competent general management in the home and told a story. The best home-maker is not a specialist — but one who promotes in the home order, style, atmosphere and influence in the community, and the influences upon the children which are unconsciously woven into their natures.

We compared the direction of stores and showed how excellent general management brought increased comfort and favor among patrons. We discussed the value of modern general management in factories and the results thereof.

Of the general management of Hospitals we said: "The hospitals of America demonstrate many kinds of management systems. An hospital is a hotel embellished by service to the sick and injured. It would seem reasonable to expect the hotel section to be best managed by a person conversant with hotel operation. More reasonable would it seem to have the service to the sick managed by a physician who has a talent for administration. Still more reasonable would it seem to have its Board of Directors largely medical or scientific men. Taking a bird's-eye view of hospital management you see a heterogeneous crowd of persons most of whom know nothing about the conduct of hotels except what they learn at the expense of the hospital. Except for a few medical superintendents the only persons educated in the care of the sick in the remotest way are graduate-nurses who are supposed to be physicians' helpers. Of course it all depends what are the objectives of general management. We physicians think that the original, primary, most important objective is the salvation and relief of human beings in physical (and perhaps mental) trouble.

If there were more physician-superintendents with experienced hotel executives as assistant the economics of hospital management as well as efficiency unquestionably would be served. When we consider the back-ground, previous experience, and non-scientific education and associations of most superintendents, many of them must be praised for their records. Viewed with clear-visioned criticism of the management of dollars for sick-care, many fall so far short of the ideal as to make angels of mercy weep.

The objective of some hospital superintendents



seems to be securing profit from competing, at ruinous charges, with physicians immediately surrounding the institution, by emergency ward service, dispensary and even ward service to those able to pay, and requiring their unpaid staff to perform the essential service without compensation. This type of procedure may seem to help the hospital overhead but it embitters the neighborhood physicians and this unfavorable reaction spreads to members of the staff and engenders unpleasant, defiant outbreaks in the Halls of Medical Societies. With physician management the disadvantages to everyone concerned, including the pauperizing of otherwise self-respecting people, would be clearly seen and except for needed emergency care patients would be referred to their family physicians.

There is no field today, except some governments — that would extend its usefulness more vividly by improved general management than that occupied by the general hospitals.

We then declared that many people slip into ghastly conditions because they lack appreciation of the importance of general management of illness or general treatment. They will conscientiously take all the medicine we will prescribe, they will accept surgery with grace and without any or much question, but ask a frail lady with arterio-sclerosis and chronic cold feet to wear woolen stockings by day and bed socks at night and see her face curdle! Or advise a merry, jocular, cardiac gentleman to cease smoking and note the severe contour of his jaw! Or urge Mrs. Plumpity to eliminate sugars, cream, mayonnaise and pastry from her diet and note the sudden pallor and shock of desperation! The values of *sleep, rest, fresh air, exercise*, the needed *ration of fluid*, the *dietary fitted* to the expenditure of heat and energy, are recognized theoretically by almost all intelligent persons — but, if the physician prescribes these things in proper doses and at the best hours, they feel that he has departed from his science and trodden upon treasured possessions all their own. Whereas, the general management of most cases, whether bed-fast or ambulatory, is of such importance that without it much medical and surgical care is unduly prolonged or unsuccessful. The modern serum treatment of pneumonia is urged only *added* to adequate nursing, plenty of fresh air (or oxygen), rest and sleep and ideal hygiene. Obesity, a real disease, needs only dietary adjust-

ment and exercise, except in endocrine cases. Moreover, obesity is the largest single cause of diabetes. The *early* nephritic or cardio-vascular needs regulated diet, water drinking, rest, and exercise more than he needs medicine. Give him medicine and let him run wild otherwise, and he is badly treated. Many of the commoner forms of modern physio-therapy can be classified as general treatment: massage, passive exercise, hydro-therapy and others.

Thus, while we seek to elevate the standards of practice, one of the momentous duties of physicians and their ladies is the education of the public in the value of *general management* of illness great and small.

As we seek to teach others perhaps we should sometimes *ask ourselves* if we are using general management in our cases to the full therapeutic degree.

Finally we discussed the general management of *life* as follows: "It is in life itself that we see the magnified importance of general management and that general management should begin its efficiency about the time the new baby has its first bath. Someone has said, "Give me a child during the first five years and I will determine his character and industry."

We shall not discuss the tremendous field suggested. What should interest *us physicians* and the gentle martyrs who patiently companion us, is the general management of body and mind of ourselves and our patients which will make life most healthy, efficient, comfortable and happy, a life of physical liberty — not license — and one that can be viewed in retrospect at any point with serene content. We can best contribute to this end by a continuous program of preventive medicine, especially that feature which gives us a long-handled lever to regulation — the Periodic Health Examination.

We are familiar with the very modern fashion of taking the baby or the small child to the physician monthly or bi-monthly for examination, checking up weight and nutrition and the giving of general guidance. The outgrowth of this excellent regime among the intelligentsia has been the well-baby clinics in Hospital Dispensaries and Municipal Health Centers. Did you ever compare the children in one of these clinics with the average child of the tenements *before* there were such clinics? The contrast is amaz-

ing! — so is the mortality among children today as compared with thirty years ago, especially in the large cities! These well-baby inventories with advices have had a tremendous influence, all agree. Then why not the same process for ourselves, our partners, our athletic youths and flowering maidens?

This Periodic Health Examination is not only material insurance for the examinee but affords him the opportunity of calm intellectual consideration with the physician of physical and nervous conditions while he is apparently in good health. Little ills can be swept away by a few general directions or trifling therapeutic procedures. The direct object of these annual or semi-annual audits is, of course, the preservation of Health. This is accomplished by recording the normal and abnormal conditions found and giving instructions so that the abnormal may be eliminated before the physical or mental handicaps ensue.

Thus we can conclude that, regardless of the priceless value of the diagnosis and treatment of disease which we now largely practice because of the urgent demand of the public and our own intense interest, prevention is a larger and more fruitful field in the *general management of life*. The scope of this prevention was suggested in an address to the House of Delegates at Rochester, and a review of this may be of advantage tomorrow, or soon. Some of it lies in the domain of Health Department action. This should excite our interest, not the disposition of it with a "Let George do it" gesture. For Health Departments need our cooperation as urgently as we need theirs, and in our own State as well as in many others the mutual endeavors are ideal. Current cooperation is making Health History.

Thus it appears that *our* contribution to the essential *general management of life* can be immediately expanded by employing a broader concept of our duties which embraces the prevention of injury and disease: enthusiastic education of the public in the desirability and value of prevention especially through Periodic Health Examinations, the re-preparation of ourselves to fully meet the demand we create, and the provision for ourselves and our families of such preventive measures as will make our public envious and clamor to be in style and up-to-date. This naturally will involve some alterations of *our* conduct for we must all abide by

the judgments and directions of our Periodic Health Examiner and report for record every six months. The results would be astonishing to most of us. Without swerving from our magnificent purposes in life we could fulfill these purposes more efficiently and dodge many little uncomfortable handicapping ills. Moreover we could side-track cerebral accidents and coronary thromboses which now deplete our ranks with increasing frequency and distressing discrimination.

It seems particularly consistent and important for us, the physicians of this fascinating perilous day, to thus emphasize in *precept, practice and example* the general management of *life* itself through Preventive Medicine.



## THE FATHER OF TROPICAL MEDICINE

Patrick Manson (1844-1922) is justly regarded as the father of modern tropical medicine. Born and educated in Scotland, at 22 he migrated to Formosa, later moving on to Amoy in Southern China. It was there that he made his first momentous discovery of filarial periodicity. The filarial embryo had been demonstrated by Timothy Lewis, some five years previously, but it was left to Manson to point out the true implication of its appearance in the blood stream at night-time only, and the bearing of this phenomenon upon the life-history of the parasite. He found that the mosquito served in the capacity of an intermediary host. The filaria underwent development in the thoracic muscles of this insect, becoming completely changed in appearance during this process.

Among Manson's relics at his death was a letter from Timothy Lewis, dated January 14, 1878, expressing his appreciation of Manson's communications, but warning him against unhesitatingly regarding the minute filariae he had found in the tissues of the mosquito as developmental stages, as they might prove to be special nematode parasites peculiar to these insects (a fact which is now known to be true). Lewis, however, judging by his own personal dissection of mosquitoes, could find no morphological differences between them and the embryo of *Filaria sanguinis hominis*.—*Proc. Royal Soc. Med.*, Aug., 1937.



# Association of Connecticut Tumor Clinics

## X-RAY TREATMENT OF CANCER OF THE BUCCAL CAVITY\*

Louis F. Wheatley, M.D., New Haven

During the past five years great advances have been made in radiation therapy and nowhere is this more apparent than in cancer of the buccal cavity. While the small well localized lesion in the anterior portion of the mouth can, in most instances, be handled best by surgical excision, unfortunately, only a small proportion of cases fall in this favorable group. The great majority of these can be treated to better advantage by radiation therapy.

The fractionated or divided dose principal is now generally accepted as being preferable to the old massive dose method in the treatment of malignancies in general. The method has obtained such favorable results in tumors of the hypopharynx and larynx as to suggest that one might reasonably expect improvement in results if applied to cancer of the buccal cavity.

These tumors, however, appear in general to be more radio-resistant than those of the pharynx and consequently require heavier radiation, and with it an attendant increase in some of the distressing reactions commonly following this method of treatment, such as epithelitis, epidermitis, radiation mucositis, necrosis and osteomyelitis.

Dr. Berven of Stockholm, in a recent article published in the *Radiumhemmet*, reports some very interesting observations on this subject, and, because of his wide experience, I shall quote him rather freely. He reports on 457 cases of cancer of buccal cavity treated between 1916-1930 by radium. After various changes in technique they have finally adopted the following:

Teleradium or radium at 6cm. distance daily for 3 weeks. The equivalent of 5 and 6,000 Rs are delivered to the tumor through multiple ports during this period. This produces a marked reaction in the nature of epithelitis, fol-

lowed in 2 - 3 weeks by epidermitis. After these reactions have subsided in a matter of 10 - 12 weeks any remaining remnants of the tumor are treated by interstitial implantation of radium needles, electro-coagulation or surgical excision.

The epithelitis usually appears in 14 - 15 days after treatment was begun and runs its course in 6 - 8 weeks. (This is a little longer than our experience has been.)

The epidermitis usually appears in 3 - 4 weeks after beginning treatment and is healed within 2 - 3 weeks after the conclusion of the treatment.

These are the reactions which we must strive to overcome. It seems like pretty heroic treatment when one gets a reaction that takes 2 - 3 months to recover from, and which also may produce radiation necrosis or osteomyelitis. I have had one case of very distressing radiation mucositis which was the beginning of a sequence of events that terminated fatally. I believe, however, that one is justified in producing these sharp reactions when dealing with an otherwise lethal condition if one hopes to control the situation by giving adequate radiation. Most of these cases do very well as far as these reactions go, however. The false membrane acts about the same as a diphtheritic membrane and sloughs off without too much discomfort. Copious irrigation of salines or peroxide allay the pain and make the mouth feel more comfortable. Cocaine sprays are resorted to when indicated for the relief of pain. Considerable attention must be devoted to maintenance of nourishment during this period. It is difficult and painful to chew or swallow food, and especial efforts to maintain high caloric values must be made. Hospitalization is sometimes necessary to carry out such measures as intravenous glucose, hypodermoclysis, rectal enemas, etc. Complete denudation of epidermis resembling a second degree burn takes place, or should take place, in all cases as an index of adequate treatment. Dresser states that this can be accomplished by administering

\*Read before the Association at Grace Hospital, New Haven, October 21, 1937.



400 Rs daily for six treatments totaling 2400 Rs. 300 Rs daily for ten treatments totaling 3000 Rs. 200 Rs daily for twenty-one treatments totaling 4000 Rs. This ordinarily heals in 1 - 2 months like a second degree burn under soothing protective ointment such as calamine ointment. The skin is left soft and pliable and in one case that I have treated there is no scarring or atrophy in three years this November. I think the patient should be told the expected clinical course of treatment; that is, that it is a major procedure, requires faithful attendance to treatments without interruption for a matter of three weeks or more; that the parotid gland is likely to become swollen and painful; that he will have a dry mouth and loss of taste followed by thick saliva and later a false membrane in his mouth and peeling of the skin covering the area treated like a severe sunburn, but that these will soon heal and leave his mouth and neck in good condition again.

Dr. Berven reports an average of 25% five year cures integrated into 32% Lingual; 46% Sublingual; 19% Gingival; 21% Buccal. He emphasizes the fact that over-dosage produces necrosis and rapid growth of the tumor. The main prerequisite is the infliction of the greatest possible damage to the tumor cells with the least possible damage to the surrounding tissues. The daily and total dose must be carefully individualized so that the inflammatory reaction will be as mild as possible, consistent with adequate dosage. In determining the dosage particular attention should be paid to the general condition of the patient, the clinical character of the growth such as location, extent and size — whether disintegration and infection are present or not,— the extent of infiltration into neighboring organs, character of the tumor bed, presence or absence of metastases, the histology of the tumor,— in order named. However, biopsy should be done on all suspicious cases because certain inflammatory lesions can easily simulate malignancies. This also should be done in clinically obvious cases because pathological grading is of considerable help in predicting radio-sensitivity even though size and anatomical relationship are of more importance.

Martin of the Memorial Hospital has found that the distressing sequelae above referred to can be largely overcome by the use of metal cylinders, composed of brass tubing lined with

lead and varying in diameter from 2cm. to 4cm. These are inserted into a master cone and due to the advent of the shock-proof tube stands, can be introduced directly into the oral cavity, circumscribing the tumor growth and in effect, converting it into a surface tumor. This largely eliminates unnecessary radiation through intervening and superimposed tissues and lessens the possibility of radiation necrosis and osteomyelitis of the jaw and also confines the epithelitis and epidermitis to a smaller area which is a result much to be desired. Because of the use of smaller portals larger dosage can also be used. Herein, I think, lies the chief hope for improvement in treatment of the buccal cavity. Using a 4cm. portal he uses between 3000 and 4000 Rs in 20 days, followed immediately by 6 - 8 milluries of radium seeds. With a 3cm. portal he uses 4 - 5000 Rs and with a 2cm. portal 5 - 6000 Rs.

Meticulous attention must be paid to dental hygiene in these cases. Patients' teeth must be thoroughly cleaned by a dental hygienist, decayed and doubtful teeth extracted, sharp edges of carious teeth smoothed over and poorly fitting dentures corrected. No extractions should be done for some time following radiation for fear of starting up radiation necrosis or osteomyelitis. In using these cylinders it is sometimes necessary to extract certain teeth to facilitate introduction of these cylinders at certain angles.

Lenz has used a modification of these cylinders by adding a sort of periscope to assist in maintaining proper position of the cylinders.

Regarding the treatment of lymph node areas, there seems to be considerable difference of opinion. Nearly all authorities are agreed that palpable metastases which are free and operable should be removed by surgical dissection together with either pre-operative or post-operative radiation. Some await the results of the pre-operative radiation, and, if the glands disappear, they withhold a dissection. However, there seems to be an irreconcilable difference of opinion regarding treatment when the glands are not palpable.

The Cancer Commission of the California Medical Association undertook to ascertain the present day practise by sending out a questionnaire to forty leading authorities throughout the world to which thirty responses were received.

Two-thirds do not dissect the glands if they are not palpable, while one-third do dissect the neck without waiting for gland enlargement. Fourteen of this conservative group give prophylactic radiation. The arguments for and against are very interesting.

Argument vs. operation.

In a large percentage of cases the tissue removed shows no cancer, but is purely inflammatory from associated infection. Many cases never develop metastatic nodes. When they do occur they occur by embolism, affecting only a small group of nodes, therefore acting as sieves and filtering out emboli. This protective mechanism is lost if block dissection is done.

Surgery vs. radiation.

Adequate treatment requires removal of all malignant cells. The regional nodes are most likely to contain these cells. It is impossible to determine beforehand which cases have involvement and it is also difficult to palpate deep glands beneath muscle. In the case of lip cancer if one waits for palpable glands cures drop from 100% to 70%.

This Commission agreed that before any treatment is begun a consultation should be held between all the branches concerned; that is, surgeon, radiologist, internist, orthopedist, etc., and an effort made to reach an agreement on procedures. They thought it was intolerable that the radiologist should be called in only after surgical or other treatment had been undertaken and *visa versa*.

Many questions in cancer therapy cannot be finally answered today for lack of sufficient experience. The studies by this Commission have brought out the great need of coordination of the experiences and ideas of all therapists concerned, especially surgeons and radiologists. It seems quite evident that cancer should be handled by cooperative efforts in Cancer Clinics with all fields of therapy represented. In this way results of various forms of therapy can be observed by the entire group and more uniform opinions result.

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### CARCINOMA COMPLICATING PROCIDENTIA UTERI

T. F. Todd reporting two cases of carcinoma of the cervix associated with procidentia in the Proceedings of the Royal Academy of Medicine for September 1937, prefaces his case reports

with these words: "The rarity of carcinoma of the cervix associated with uterine prolapse is one of the most striking contrary findings to the commonly accepted theory that chronic irritation is an important etiological factor in the genesis of cancer. Procidentia uteri is common, yet there are less than forty cases of procidentia with superimposed cancer reported in the literature." In the October issue of the same Proceedings, M. Basden reports a case of carcinoma of the vagina complicating complete procidentia, another rarity.

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### MEDICINE AND THE PRESS

It is of interest to note the rising interest in the publication of medical news. In a recent college commencement address, H. W. Blakeslee, Associated Press Science Editor, says: "In all the sciences there is one which the medical profession has overlooked. In fact they have shunned it. This is the newspaper publication of medicine. Both the medical profession and the press have begun to change. Last month five science writers were awarded a Pulitzer prize. Some of the news they wrote, which brought the prize, was about medicine."\*

In Chicago in October, 1937, the trustees of the American Medical Association met with members of the National Association of Service Writers in a special conference. The speakers for the medical profession emphasized the greater need of caution and care in the presentation of medical news to the lay public. The newspaper men called for cooperation by the medical profession in making available first-hand sources of medical news to properly qualified writers.

At the convention of the American Hospital Association last September a similar note was struck by Dr. Allan Craig, then of Torrington, when he advocated closer cooperation between hospital superintendents and the newspapers.

\*Delaware State Med. Jour., October, 1937

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The eighth hospital to be built with the aid of the Commonwealth Fund of New York was recently opened at Tupelo, Mississippi. Known as the North Mississippi Community Hospital, it gives to the northeastern part of that state a modern, fireproof, well-equipped fifty-bed hospital, held in trust for the public, open to all qualified physicians and designed to serve the sick without discrimination.—*Jour. Tenn. State Med. Assoc.*, Nov., 1937.



# State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

## PHYSICIANS' LICENSES MAY BE REVOKED FOR FAILURE TO FILE BIRTH CERTIFICATES

In the May 1937 issue of the Journal of the Connecticut State Medical Society, attention was directed to the importance of prompt birth registration. From the Proceedings of the Connecticut State Medical Society several citations were quoted to the effect that the Society was in favor of prompt reporting.

Since July 1, 1934, a list of physicians has been prepared each month showing those who have reported births over thirty days late. The law requires a birth to be reported within ten days, so generous latitude has been extended to physicians. Furthermore, if a physician reported only one birth late, he was not listed. If he reported two or more, he was listed and written to. Again, if a physician appeared late with one birth for each of three successive months, he was listed and written to.

Since this procedure was instituted, 120 physicians' names have appeared on the lists. These men have directly violated the law of the state which has privileged them by granting a license to practice medicine and surgery. In the granting of a license, the state expects observance of the laws relating to the practice of medicine and surgery. It is a cognizance of violation of the law that the following act was passed in 1935.

Section 62c, Cumulative Supplement to the General Statutes. Failure to file birth certificate:

"The secretary of any examining board of the healing arts mentioned under section 2735 and the secretary of the state board of examiners of midwifery, on ascertaining the fact that a person licensed to practice any of the healing arts or midwifery, has failed to file a birth certificate as provided under section 339, as amended by section 60c, shall immediately request the state commissioner of health to suspend the license of such person, which suspension shall be in effect

until such certificate shall have been filed. Any such person licensed to practice the healing arts or midwifery who shall engage in practice during the period of such suspension shall be subject to the penalties respectively provided for the practice of his or her profession without a license or certificate of registration."

By this act, physicians who do not file birth certificates make themselves liable to suspension of their licenses to practice medicine and surgery.

The list which is given below contains forty-one physicians who would thus have laid themselves open had it been known by the Secretary of the Examining Board that the births were unrecorded. In September 1936 the list contained the names of thirty-eight physicians. Seven of the forty-one physicians listed in 1937 were also on the 1936 list.

Failure to register a birth frequently has an intensely human side. Unfortunately, in many registrar's offices, something like the following little drama actually occurs.

Scene, Office of the Registrar of Vital Statistics.

Cast

The Town Clerk and Registrar.

Sally, a girl, perhaps twelve years old.

Sally: "Please, Mister, my brother Dick is going to school, and mother sent me for his birth certificate."

Town Clerk: "Hello, Sally — sure, I'll look it up — wait a moment, it will be in this great, big book. No, I don't find it."

Sally: "But, gee, mister he's my brother, okay."

Town Clerk: "Sally, here is your record in the book. Did your mother have the same doctor when Dick was born? I thought so. Now, you go to the doctor's office and wait to see him. Tell him I sent you there and that I'm waiting for you to bring back the certificate. He may tell you he will mail it in — but you wait right there until he gives it to you; then bring it to me."



And so, brother Dick's birth certificate is finally recorded. Later in life, Dick may be asked why his birth certificate was filed six years late. How should he explain it? Why should he be expected to explain? Yet this late birth may be put aside for investigation as to possible fraudulent registration.

#### LATE BIRTHS SUBMITTED SEPTEMBER 30, 1937

No.	Date of Birth	Date Rec'd. Reg. Office	Interval Yr. Mo. Da.	Residence of Physician
1	3/16/32	9/ 2/37	5 5 16	An Ansonia physician
2	10/28/31	9/ 8/37	5 10 30	Same physician
3	3/21/32	9/ 8/37	5 5 17	An Ansonia physician
4	11/21/32	9/11/37	4 9 20	Same physician
5	8/21/32	7/15/37	4 10 24	An Ansonia physician
6	10/ 3/32	9/ 7/37	4 11 4	A Branford physician
7	6/11/33	9/24/37	4 3 13	A Canton physician
8	9/16/18	7/29/37	18 10 13	A Danbury physician
9	5/ 2/33	9/ 8/37	4 4 6	A Derby physician
10	2/16/32	9/ 8/37	5 6 22	Same physician
11	6/ 5/32	9/ 4/37	5 2 29	Same physician
12	9/ 6/33	9/ 9/37	4 0 3	Same physician
13	6/10/32	9/ 8/37	5 2 28	Same physician
14	7/14/37	8/25/37	1 11	A Derby physician
15	3/15/32	9/ 7/37	5 5 22	A Derby physician
16	9/22/18	9/ 2/37	18 11 10	Same physician
17	9/19/31	9/ 9/37	5 11 20	Same physician
18	5/ 1/07	8/16/37	30 3 15	An East Lyme physician
19	3/12/27	9/13/37	10 6 1	A Meriden physician
20	6/26/25	9/13/37	12 2 17	Same physician
21	7/ 2/37	8/28/37	1 26	A Montville physician
22	7/22/37	8/28/37	1 6	Same physician
23	7/ 1/37	8/18/37	1 17	A New Haven physician
24	7/ 9/33	9/ 7/37	4 1 28	A New Haven physician
25	7/25/37	8/30/37	1 5	A New Haven physician
26	8/28/33	9/ 8/37	3 11 10	A New Haven physician
27	10/27/32	9/ 1/37	4 10 4	Same physician
28	5/18/31	9/ 1/37	6 3 3	A New Haven physician
29	5/17/31	8/21/37	6 3 4	A New London physician
30	3/17/31	9/10/37	6 5 23	Same physician
31	2/13/32	8/21/37	5 6 9	Same physician
32	8/ 9/31	8/21/37	6 0 12	Same physician
33	5/ 9/37	8/21/37	3 12	Same physician
34	3/10/37	8/21/37	5 11	Same physician
35	7/ 4/37	8/21/37	1 17	Same physician
36	3/29/32	9/10/37	5 5 11	Same physician
37	4/24/37	8/21/37	3 27	Same physician
38	5/21/37	8/21/37	3 0	Same physician
39	3/ 8/37	8/21/37	5 13	Same physician
40	6/15/37	8/21/37	2 6	Same physician
41	2/15/36	8/21/37	1 6 6	Same physician
42	10/24/19	9/11/37	17 10 17	A New London physician
43	12/28/23	9/11/37	13 8 13	Same physician
44	9/17/32	9/ 9/37	4 11 22	A New London physician
45	6/29/37	9/ 8/37	2 9	A New London physician
46	3/29/16	9/ 8/37	21 5 9	A New London physician
47	9/ 4/32	9/ 7/37	5 0 3	A New London physician
48	9/16/31	9/ 7/37	5 11 21	Same physician
49	10/12/33	9/14/37	3 11 2	A New London physician
50	2/12/32	9/14/37	5 7 2	Same physician
51	5/24/31	9/13/37	6 3 19	A Norwalk physician
52	6/ 4/19	8/20/37	18 2 16	A Norwalk physician
53	7/ 1/37	8/11/37	1 10	A Norwich physician
54	7/16/37	8/19/37	1 3	Same physician
55	8/17/35	9/ 2/37	2 0 15	A Portland physician
56	7/ 4/37	9/ 2/37	1 28	Same physician
57	7/11/37	9/ 2/37	1 21	Same physician
58	6/30/37	9/ 2/37	2 2	Same physician
59	7/29/37	9/ 2/37	1 3	Same physician
60	10/ 6/30	9/ 9/37	6 11 3	A Rocky Hill physician
61	5/25/32	9/14/37	5 3 19	A Torrington physician

No.	Date of Birth	Date Rec'd. Reg. Office	Interval Yr. Mo. Da.	Residence of Physician
62	7/ 5/29	9/14/37	8 2 9	Same physician
63	12/31/18	9/ 8/37	18 8 7	A Torrington physician
64	7/ 3/05	9/ 2/37	32 1 29	Same physician
65	10/16/99	9/ 2/37	37 10 16	Same physician
66	7/ 7/21	7/28/37	16 0 21	A Wallingford physician
67	6/17/37	9/13/37	2 26	A Waterbury physician
68	7/28/37	9/13/37	1 15	Same physician
69	1/30/30	9/11/37	7 7 11	A Waterbury physician
70	7/20/37	9/ 1/37	1 11	A Waterbury physician
71	7/18/37	9/ 1/37	1 13	Same physician
72	8/18/32	9/ 7/37	5 0 19	A Waterbury physician
73	1/23/20	8/27/37	17 7 4	A Waterbury physician
74	5/ 3/18	8/20/37	19 3 17	A Waterbury physician
75	6/22/30	9/ 9/37	7 2 17	A Watertown physician
76	8/19/19	8/30/37	18 0 11	A Winchester physician
77	12/ 9/36	8/26/37	8 17	A Rhode Island physician



#### MEDICAL RELIEF IN ONTARIO

The system of medical relief in Ontario is based upon the principle that relief recipients are to receive care by private practitioners and that the payment to physicians will be in the form of fees for specific services. With the patient permitted to choose his physician, it was recognized that some control measures were necessary. In many other systems of medical relief, the services of physicians must be authorized by a designated person, except in emergencies. This necessitates the development of efficient authorizing machinery. Except for certain special services, no authorizations are required in Ontario, the patient calling a physician whenever medical care is needed. Instead of authorizations, local medical relief committees review each physician's monthly account. The committee has the authority to reduce any account by whatever amount it thinks necessary.—*Medical Relief Administration, Essex County Med. Econ. Res., Windsor, Ont.*



#### FOOD AND DRUGS LEGISLATION

The unnecessary deaths of more than sixty people who took a pharmaceutical preparation labelled "elixir of sulfanilamide", secret in composition and unstandardized, emphasizes again the importance of securing as soon as possible adequate legislation relating to foods, drugs, diagnostic and therapeutic devices and cosmetics. Either by amendment of present food and drug laws or by the passage of new laws the public must be protected.—*J. A. M. A., Nov. 6, 1937.*

# The JOURNAL of The Connecticut State Medical Society

*Owned and Published Monthly by*

The Connecticut State Medical Society, New Haven

Stanley B. Weld, M.D., *Editor-in-Chief*, Hartford

Frank Stafford Jones, M.D., Hartford

Charles Mirabile, M.D., Hartford

Oliver L. Stringfield, M.D., Stamford

Herbert Thoms, M.D., New Haven

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**MANUSCRIPTS.**— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

**ILLUSTRATIONS** — Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

**SUBSCRIPTIONS.**— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

**REPRINTS.**— Reprints of papers and obituaries may be obtained from the Editor at cost.

## • Editorials •

### SYPHILIS

At present, Syphilis is probably the most talked about disease which afflicts mankind. Articles about this disease are appearing in many lay periodicals with the result that the barriers which formerly surrounded discussion of it are disappearing. The public is sincerely interested in the campaign to minimize the dangers of Syphilis. Because of this interest on the part of the public it is important that all medical men should be prepared to treat Syphilis according to the most modern methods.

In order to bring these methods to the knowledge of all practitioners the Committee on Venereal Disease Control of the Connecticut State Medical Society is compiling a series of brief articles on Syphilis, the first of which appears in this issue of the Journal. These articles will be written by men in various branches of the profession from all parts of our state with the addition of a few of the national leaders in the campaign against this disease. The articles are to be short and, it is hoped, will contain much information in readable form.

The importance of this attempt of the Committee on Venereal Disease Control to be of practical assistance to the profession cannot be minimized. It is hoped that everyone who receives the Journal will read these articles and will derive some profit from them.

JAMES DOUGLAS GOLD, M.D.

Chairman of the Council



### THE MENTALLY ILL

The care of the mentally ill has slowly improved during the past century, yet much remains to be done. The Connecticut colonies early recognized their obligation, for in 1759 the General Assembly made an appropriation for the insane, who were then considered appropriate charges against the colony. The motive then, and for many years to follow, was entirely the protection of the public against the acts of those who were called insane. Unfortunately, this idea still prevails, while more recent thought con-



siders the welfare and treatment of the sick individual as of prime importance. To this we should add a still further step in line with modern medicine, which looks forward into the field of prevention.

The State Medical Society, almost from its beginning, has taken an active interest in the care of the sick and needy, and has advocated that suitable places be provided for their treatment. Their early activities in behalf of the inebriates and the establishment of the School for the Deaf bear witness to this fact. The agitation which began about 1812 by this Society, and which continued for several years, finally culminated in the opening of the Hartford Retreat. This institution was at first largely supported by the Society, though the General Assembly did make some appropriations.

The Society soon again turned its attention toward the establishment of a state institution for the poor insane, and this resulted in the building of what is now known as the Connecticut State Hospital, at Middletown, where the first patients were admitted in April 1868. Almost from the beginning, the superintendents of the institution repeatedly called attention to the marked overcrowding, so that in 1904 we see the opening of the Norwich State Hospital, and at a still later date, the Fairfield State Hospital. At all times the State has lagged behind in making suitable provision for its mentally ill, and such faults as exist are attributable in a very large degree to the general lack of funds made accessible by the General Assembly. One of the early superintendents of the Connecticut State Hospital predicted that soon there would be one person in a mental hospital to every three hundred in the general community. At the time, this was considered a very bizarre statement, but with the passing of time we have come to learn its truth. The problem of the mentally ill is a major one, and again challenges the sincere attention of this Society.

The old institution at Middletown remains, and the original buildings are still in use. True, additional buildings have been erected, but with one exception, all of them are more than forty years old. They were constructed at a time when seclusion, restraint and custodial care were the principal considerations, but with the change of thought and practice regarding the care of the mentally ill, these old buildings are no longer

suitable, and constitute a severe handicap to the medical and nursing staff of this institution. Can we imagine ourselves trying to care for the present needs of our medical and surgical cases with the hospital facilities of even twenty-five years ago? A great deal of credit is due to the staffs of these institutions in producing results under such conditions, and they merit our support. These institutions invite your honest inquiry and seek your aid in relieving this overcrowding that has so long been tolerated, and they call for your assistance to provide suitable facilities and to offset present political trends. The available data are too voluminous to be dealt with at this time. A glimpse of the picture, however, may be obtained when we know that in 1910 there was one patient in a state mental hospital to each three hundred and forty-five of the general population. This has increased so that the resident population of these hospitals in 1937 represented one patient for each two hundred and fifty-nine persons in the general population. The rate of increase in the hospital census has increased very much more rapidly than has that of the State at large.

The problem is complex and yet simple, for no one will deny that there is a definite increase in the number and ratio of those being committed to our mental hospitals, and inasmuch as the State has taken over their care, then the State owes a duty to its citizens to provide proper and suitable facilities. We, the Society, should again back up these institutional heads in their oft-repeated requests for sorely needed tools, equipment and buildings with which to carry on. We might well offer our facilities to those who have been trained in psychiatry and afford an opportunity for a full presentation of facts and data with their recommendations. We should lend our sympathetic ear and counsel and with the full force of our organization bring into being such plans as may be deemed wise.

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#### THE "PRINCIPLES AND PROPOSALS"

Following a petition by the requisite number of members, the Council of the State Society has called a special meeting of the House of Delegates for Wednesday, January 19, 1938, at the New Haven Medical Association building on Whitney Avenue. This meeting will concern itself only with a discussion of the Principles and Proposals as promulgated by the self-appointed

Committee of Physicians. Just what will come of this session of the House of Delegates is a matter of conjecture. Discussion by this body is always in order when it is intelligent and when it serves to crystallize opinions already held by members scattered throughout our State. At least, this special session of the House of Delegates should serve to inform our delegates, and through them our membership, of the vital problems involved in the Principles and Proposals. This *Journal* has maintained an impartial position in this controversial matter, believing that there is much to be discussed and much to be learned by many of the profession before the problem should be dismissed with a wave of the hand or applauded as the only solution of approaching Federal encroachments.



### AN INJUSTICE STRIKING THE HEART OF MEDICINE

For a brief moment imagine yourself in the position of the practising physician who finds himself forced to compete with a corporation financed by a Federal fiscal agency and practising medicine on a vast scale. Such is the predicament of the physician in the District of Columbia where Group Health Association, Inc., is practising medicine and at the same time is engaged in the insurance business. For \$39.60 per annum, payable in equal monthly instalments, family membership is available for married or single persons with dependents. Individual membership is available for married or single persons without dependents at \$26.40 per annum, payable monthly. Members and dependents are to be provided with medical and hospital service.

The excuse for such activities is said to be the excessive costs of medical services to government employees. No evidence to prove this point has been found. The standards of medical service maintained up to this time by the profession must suffer under this wholesale bargain plan and the physician who sells himself for this kind of practice will awake disillusioned as well as disliked.

The District of Columbia has a total population of 486,869. Of these 115,912 are Federal civil employees. 2,517 of this number are employees of the Federal Home Loan Bank Board

and its affiliated agencies. Add to these eligibles two dependents for each employee and there are removed from the ordinary practice of medicine 347,736 persons, or about three-fourths of the total population.

This is not all. The area to be served covers not only the District of Columbia but considerable territory in Maryland and Virginia. A similar corporation is contemplated in Denver, Colorado, and in two or three other centers where there are large numbers of Federal employees. The validity of such a corporation is now before the courts. The outcome will have a far-reaching effect on the practice of medicine. We await the verdict.



### ANNUAL CONFERENCE OF STATE SECRETARIES AND EDITORS

On November 19 and 20 the Secretaries and Journal Editors of the constituent State Medical Societies met at the American Medical Association building in Chicago for their annual conference. Our Secretary, Dr. Barker, presented in a most interesting and entertaining manner, as part of a symposium on post-graduate study, the history of our Clinical Congress. The program of the Conference appears on the opposite page. There was much profitable discussion, particularly among the Journal editors. The "Principles and Proposals" of the 430 physicians furnished its share of discussion.



### WISCONSIN'S HALL OF HEALTH

105,300 people attended the Hall of Health held in connection with the annual meeting of the Wisconsin Medical Society at Milwaukee in September. To say it was a success is to put it mildly. It was the first exhibit in the United States of a purely health nature on such a large scale. The wide aisles were jammed, the guides often had to re-route the flow of spectators in the hall. Specially conducted tours were arranged for school children and other groups. With this health exhibit the State Medical Society of Wisconsin has demonstrated, not only that the profession is able and willing to discharge the major function of health education, but that the public is eager to accept leadership from responsible sources.



## From the Secretary's Office

**CREIGHTON BARKER, M.D.**

**258 Church Street New Haven**

### **The Committee of Physicians**

The Committee of Physicians that has been promulgating certain "Principles and Proposals" for the better distribution of medical service requested that this Society give consideration to those proposals. The request was discussed by the Council at its November meeting and the Chairman appointed a committee consisting of the President of the Society, Dr. Turkington; the Treasurer, Dr. Miller and the Councillor from New London County, Dr. George Gildersleeve, to further inquire into the project and report to the Council at its January meeting.

### **Annual Conference of State Secretaries and Editors**

The Secretary and the Editor of the Journal attended the Annual Conference of State Secretaries and Editors in Chicago on November 19-20. The following program was productive of much interesting discussion.

W. F. Donaldson, Penn., Presiding.

Friday, November 19 — 10:00 A.M.

Call to Order. Arthur W. Booth, Chairman, Board of Trustees of American Medical Association.

Address. J. H. J. Upham, President, American Medical Association.

Student Health Services: A Challenge to Medical Societies. J. D. Laux, Bureau of Medical Economics of American Medical Association.

Extension (Postgraduate) Courses of State Medical Associations. Walter F. Donaldson, Pittsburgh; Creighton Barker, New Haven, Conn.; T. W. M. Long, Roanoke Rapids, N. C.; Holman Taylor, Fort Worth, Texas.

The Uses and Benefits of Exhibits Under Auspices of State Medical Associations. Eben J. Carey, Milwaukee.

12:30 P.M. Luncheon.

Friday, November 19 — 2 P.M.

Address. Irvin Abell, President-Elect, American Medical Association.

The State Association and the Social Security Act:

New Jersey's Cooperative Program for Maternal and Child Health. LeRoy A. Wilkes, Trenton, N. J.

Cooperative Program of the Illinois State Medical Society. Harold M. Camp, Monmouth, Ill.

The State Association's Part in a Pneumonia Control Program. Peter Irving, New York.

Friday, November 19 — 6:30 P.M.

Palmer House

Dinner Meeting of Editors of State Medical Journals. E. M. Shanklin, Hammond, Ind., Presiding.

Better Papers for State Medical Journals. J. H. Dempster, Detroit.

Round Table Discussion:

Publication Costs.

Typographical Arrangement.

Cross References.

Saturday, November 20 — 9:30 A.M.

Two Important Legal Problems: Malpractice Claims; Taxation Under Federal Revenue Acts and Social Security Act. W. C. Woodward, Director, Bureau of Legal Medicine and Legislation of American Medical Association.

Topics for General Discussion:

Secretary's Bulletins for Officers or Members.

By-laws Pertaining to Membership and Disciplinary Measures.

Rural Rehabilitation Plans of Federal Government.

Independent Societies.

Automobile Accidents.

Taxation of physicians under the Social Security Act was of especial interest. Apparently there is lack of uniformity in the interpretation of the Act insofar as it affects the employees of physicians, and if the members of our Society wish information concerning it, the Secretary will undertake to clarify, at least, some of it if a communication is addressed to this office.

### **Prepaid Hospital Service Plans**

The joint committee from this Society and the Connecticut State Hospital Association has been in conference in regard to prepaid hospital service plans, and although no definite recommendations have been formulated, careful exploration of the inclusion of some medical services in such plans is being made and the advisability of formulating a basic, standard contract for organizations within this State is under consideration. It is believed that the ultimate report of this committee that will be submitted to the House of Delegates will include proposals that

will be mutually satisfactory to hospital administrators and physicians.

#### **Delegates from New York**

Information has been recently received from the Secretary of the Medical Society of the State of New York informing us that the President of the Society has appointed as delegates to the Annual Meeting of The Connecticut State Medical Society, 1938, Charles Gordon Heyd, New York, former president of the American Medical Association, and Nathan B. Van Etten, New York, Speaker of the House of Delegates of the American Medical Association, and as alternates, Floyd S. Winslow, Rochester, former president of the Medical Society of the State of New York, and William A. Groat, Syracuse, President-Elect of the Society.

#### **Delegates from New Jersey**

William G. Herrman, President of the Medical Society of New Jersey has informed us that Watson B. Morris, Second Vice-President, Springfield, and Hilton S. Read, Chairman of the Welfare Committee, Ventnor, will be the delegates from New Jersey to the Annual Meeting of The Connecticut State Medical Society this year.

#### **Venereal Disease Survey**

About one-third of the membership of the Society responded to the questionnaires that were prepared by the Society's Committee on Public Health regarding the existence of venereal disease within the State. The analysis of the reports has not been completed, but it is certain that the results of the study will provide much valuable information.

#### **New Directory**

The 1938 Medical Directory of New York, New Jersey, and Connecticut, is now on the press and copies should be received by those who subscribed to it during this month.



#### **NEW JERSEY**

A "Cancer Week" was recently sponsored in New Jersey by the Passaic County Medical Society. Two evening symposiums, one evening lecture for the public, round table discussions, and exhibits for physicians and for the public, including motion pictures, made up a very attractive program.

The 172nd Annual Meeting of the Medical Society of New Jersey will be held in Atlantic City at the Ambassador Hotel on May 17 - 19, 1938.

## **Our Neighbors**

#### **MAINE**

The Annual Clinical Session of the Maine Medical Association was held in Portland this year on October 21 and 22. An attendance of 250 was reported by the Secretary. Sessions were held at the Maine General Hospital, the Maine Eye and Ear Infirmary, the Children's Hospital and St. Barnabas Hospital. An exhibit illustrative of the work the Women's Field Army for the Control of Cancer is doing throughout Maine was on display at the Maine General Hospital. April 2 to 9, 1938, was approved as the time for the next educational campaign of the Women's Field Army. Another Tumor Clinic in Waterville was approved and the Cancer Committee recommended to each county society that at least one meeting a year be devoted to the subject of cancer.

An editorial in the November issue of the Maine Medical Journal (1937) informs us that only about 25% of physicians are enthusiastic regarding the value of educational cancer campaigns among the laity while the laymen themselves show 95% enthusiasm. The interested and enthusiastic physicians report a marked increase in the number of patients coming to them for complete physical examinations as yearly check-ups in the way of prevention. They also report an increase in the number of patients coming both for the diagnosis of benign and malignant lesions, all as a direct result of the educational work being done among the laity.

Lubec, Maine, boasts a physician in active practice continuously for 62 years and now at the ripe age of 89 years going strong. The Washington Medical Society is proud to claim Dr. E. H. Bennett as a member.



#### **MASSACHUSETTS**

Post-graduate Extension Courses for all registered physicians in Massachusetts will begin in January and will be given under the auspices of the Massachusetts Medical Society. The courses will be sponsored jointly by the Society, the



State Department of Public Health, the United States Public Health Service and the Federal Children's Bureau. These courses cover the following subjects: Gonorrhea, Syphilis, Heart Disease, Rheumatic Fever, Obstetrics, Pediatrics and Pneumonia.

Dr. Charles S. Curtis, active almost since the day he finished his internship at the Boston City Hospital at some station of the International Grenfell Association in Labrador, has been recently appointed medical superintendent and executive officer of all the hospitals and schools conducted by the Association. Five hospitals, six nursing stations, three hospital ships and several schools are operated by the Association in northern Newfoundland and Labrador. Dr. Curtis well deserves this recognition of years of faithful service.

#### **Program of Greater Boston Medical Society:-**

January 4 — Symposium on Oto-Laryngology, Beth Israel Hospital.

February 1 — Max Cutler, M.D., Michael Reese Hospital, Chicago.

March 1 — Edward D. Churchill, M.D., Mass. General Hospital.

April 5 — Louis Nahon, M.D., New Haven, Conn.

May 3 — Annual Meeting and dinner.

All meetings except that of May will be held in the auditorium of the Beth Israel Hospital.

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#### **RHODE ISLAND**

Providence acted as host to the New England Surgical Society in October during a two day session. Dr. D. C. Patterson of Bridgeport presented a paper and among those discussing the various papers were Drs. H. G. Jarvis and D. B. Wells of Hartford and Dr. C. L. Larkin of Waterbury. Dr. E. H. Kirschbaum of Waterbury was elected to membership at this time.

The Rhode Island Medical Society, through the trustees of the Fiske Fund, is offering a prize of \$150.00 for the best essay on "Surgery in the Treatment of Disorders of the Autonomic Nervous System". This essay must be submitted on or before May 1, 1938 and should not exceed 10,000 words.

#### **NEW YORK**

The Medical Society of the State of New York deserves due credit for initiating and, together with the State Department of Health, sponsoring a pneumonia control program throughout its state. One phase of the program consists in the holding of pneumonia institutes, the first of which convened in Syracuse in October. Lectures, clinical demonstrations on points presented in the lectures, clinics on treatment, were all given in the hospitals and at the University School of Medicine.

Albany Medical College has lost Dr. Lloyd H. Ziegler, Professor of Neurology and Psychiatry, to Illinois College of Medicine. It has added Dr. Victor C. Jacobsen of Troy as Associate Professor of Medicine.

Dr. Joseph Hoguet has been appointed administrative assistant and medical director of the New York World's Fair of 1939. He will be in charge of executive and administrative work of the division of public health, medicine and sanitation and will be responsible for the health of members of the exposition staff and of visitors attending the fair. Dr. Hoguet graduated from Columbia University College of Physicians and Surgeons in 1907 and was at one time assistant professor of clinical surgery at Cornell University Medical School.

The New York Academy of Medicine is now giving its third series of Lectures to the Laity on "The Art and Romance of Medicine." The remainder of the program follows:-

January 27 — "Medicine in the Middle Ages," James J. Walsh, M.D., Extension Professor, Fordham University.

February 24 — "The Search for Longevity," Raymond Pearl, Ph.D., Professor of Biology, Johns Hopkins University.

March 24 — "The Physicist's Contribution to Medicine," Edward Elway Free, Ph.D., Consulting Physicist.

April 28 — "Medicine and the Progress of Civilization," Nicholas Murray Butler, President, Columbia University.

May 26 — "X-ray Within the Memory of Man," Lewis Gregory Cole, M.D., Consulting Roentgenologist, Fifth Avenue Hospital.

# The Neuro-Psychiatric Institute of the Hartford Retreat

## AN EVALUATION

In 1822 James Monroe was President of the United States but had not yet declared the famous Monroe Doctrine; Abraham Lincoln was a thirteen year old boy, living obscurely in Spencer County, Indiana; the steamboat was still a novelty and there were no railroads; Michael Faraday had just succeeded in transforming electric current into motion, while in France, Laennec had just invented the stethoscope; many still lived who had personally known George Washington. The mists of superstition and ignorance still hung heavily over society's treatment of the mentally ill, but in France, Pinel, in England, Tuke, and in America Eli Todd were already speaking out.

In that year, the Connecticut State Medical Society with the cooperation of the Clergy, and the support of the citizens, founded one of the three oldest hospitals exclusively for the care of mental and nervous disorders, what is now, The Neuro-Psychiatric Institute of the Hartford Retreat.

*Q. What is the Neuro-Psychiatric Institute?*

A. A non-profit institution for the diagnosis, care and treatment of the mentally ill, and for the prevention of mental illness. To the specialist in mental and nervous illnesses and to the general practitioner, the Institute offers assistance, through its clinical and diagnostic facilities, in meeting unusual problems encountered in their practice. These facilities are available both for diagnosis and treatment, and may be utilized to formulate subsequent treatment elsewhere either in a preventive or a curative program.

*Q. Is it a well-established institution?*

A. It has functioned as a vital factor in this special field for one hundred and fifteen years without interruption.

*Q. Is it restricted to the use of any particular theory of medical or psychiatric practice?*

A. No. Any sound and proven theory of medicine is utilized. New theories are not tried merely because they are new; nor are they rejected because of their novelty. There is only

one test: whether a theory is based on true scientific fact.

*Q. Is the Institute a Connecticut institution in spirit as well as in name?*

A. The Board of Directors, Board of Managers and Board of Medical Visitors are all well-known residents of Connecticut who serve in this capacity without compensation.

*Q. What contribution has the Institute made in its special field?*

A. Originally founded and since maintained as a private institution, it set a pattern in this and in other states for the organization of hospitals for mental and nervous illness. More recently, by the establishment of a broad educational program to supplement the medical and psychiatric approach, the traditional "institutional" attitude of negativism has been largely dissipated.

While based on broad educational principles, this program is conducted under careful psychiatric supervision and has for its aim not only the development of individual abilities but the creation of a normal creative atmosphere within the Institute.

*Q. Does the Institute have good professional standing?*

A. All the Medical Staff are Fellows or Members of the American Psychiatric Association; approval has been given by the American Medical Association and certification by the American College of Surgeons. Professional relations have been established with leading universities and training at this Institute is accepted as credit toward an advanced degree in medicine.

*Q. Should one feel embarrassed about seeking treatment at the Institute?*

A. No more than in seeking admission to a general hospital for a physical ailment. At the same time, privacy has been emphasized and the routine "admitting procedure" has been abandoned in favor of a more informal method of receiving patients as guests.

*Q. Does the Institute confine itself to routine custodial care?*

A. The one thing that is avoided is routine custodial care; each guest receives individual



care adapted to his or her particular needs. Special research projects are completed and reported through national scientific associations.

*Q. Are further research projects planned?*

A. Yes. But not merely as projects. A new Science Building has been constructed and new laboratories for research have been developed. There are members of the Staff devoting themselves exclusively to the advancement of scientific knowledge in this field. Studies now in progress include research in endocrinology and insulin therapy for schizophrenia. Increasing emphasis on research will follow as the means are provided and the individuals with the requisite training and temperament are secured.

*Q. What is the nature of the educational and re-educational program inaugurated at the Institute?*

A. Under psychiatric guidance, the development of an individualized program of education to supplement the medical and psychiatric care. This "training for living" as it has been called, has four aspects: 1. Avocational. 2. Recreational and Social. 3. Physical Education. 4. Vocational. It seeks to put into practical effect the recognition of the fact that the individual has many facets to his personality, and the over-development of one may result in the under-development of another. The healthful strengthening of the physical, social, intellectual and cultural in each guest makes him more competent, better integrated and better able to resume his place in the community with inner resources at his command.

*Q. Is the educational program available to all guests?*

A. All are encouraged to use it. No patient is too ill to profit by it in some measure. Naturally it is flexible enough to be adapted to the patient's needs, no matter how ill or how well.

*Q. Are the expenses of operating such an institution greater than for a public institution?*

A. Although serving the public in the sense that it is not a corporation organized for profit, the Institute emphasizes the privacy of its guests. While there is no organized "charity service" and no distinction made between those who are able to pay the cost of their care, there has been each year an increasing number of Connecticut residents who have been helped. To be truly effective, a program for the treatment of the mentally ill must be "individualized" and

careful study made of the inter-action of one person on another. The expense of operating such an organization where individualized care and careful classification are in effect, is necessarily greater than it would be if the curative aspects were abandoned and activities were directed merely to a satisfaction of physical requirements.

*Q. Would it be possible to lower standards and thus reduce expenses?*

A. It would be possible but certainly it would not be advisable. Not many institutions are now able to do more than provide food and shelter with a modicum of medical care. The problem of mental and nervous diseases can only be met by HIGHER STANDARDS of medical care.

It would be preferable to restrict the sphere of influence of the Institute than to lower our standards and thus destroy our real usefulness.

*Q. From what sources are the revenues received with which to operate the Institute?*

A. Some money is received from patients, but it is necessary to supplement this by endowment, which, at the present time is inadequate to carry out the plans evolved to increase the usefulness of the Institute. Revenue received from patients is sufficient only to cover the bare operating costs; repairs, new equipment, new construction and improvement of facilities is dependent upon endowment.

*Q. How would money received from endowments be expended?*

A. In accordance with the wishes of the donor; specific instructions might be given for the purchase of new equipment to augment clinical facilities or for any other purpose which the donor stipulates. General bequests would probably be used to extend additional aid to those worthy of care or for further research work.

*Q. Does the Institute now extend charitable assistance to those unable to pay?*

A. The policy established by the founders more than one hundred years ago has been strictly observed. By this policy, both private and public charity cases are accepted without distinction, the latter being restricted to those whose prognosis is favorable. Nearly one-third of the patients at the Institute are receiving assistance in some degree. No Connecticut resident with a favorable prognosis has been refused admission since April 1, 1931, merely because they were unable to pay.

*Q. Is the Neuro-Psychiatric Institute a sectarian institution?*

A. It is not. As a scientific institution it makes no distinction other than its ability to be useful in a particular case.

*Q. How can the Institute broaden the scope of its activities and do more charitable work than it is now doing?*

A. By the receipt of donations in any sum, or by incorporation in your will, or those of your friends, specific bequests naming the Institute as beneficiary.

*Q. What form should such bequests follow?*

A. For the bequest of a sum, the principal to be invested and the income utilized, the bequest might read:

"I give and bequeath to the President and Directors of the Hartford Retreat, a corporation under charter of the State of Connecticut, the sum of . . . . . Dollars, the principal sum to be kept safely invested and the income to be used for general charitable purposes of said corporation."

Or, if an outright bequest for general charitable purposes, it might read:

"I give and bequeath to the President and Directors of the Hartford Retreat, a corporation under charter of the state of Connecticut, the sum of . . . . . Dollars, the principal and income of such gift to be used by said corporation as it deems best for its general charitable purposes."

*Q. Will such a bequest contain all the elements of intelligent giving?*

A. It will. The problem of mental illness increases in seriousness each year, so that today it constitutes one of our major economic burdens. With more hospital beds occupied by those mentally ill patients than all other diseases combined, it is apparent that in addition to economics, it is a humane problem that touches on the lives of all of us. The Neuro-Psychiatric Institute of the Hartford Retreat is an enduring institution of proven value. With more than a hundred and fifteen years of successful achievement in this field, it has continued to pioneer in a field, which today, more than ever before presents possibilities for constructive help to humanity.

## BOARD OF MEDICAL VISITORS

The Neuro-Psychiatric Institute  
of the Hartford Retreat:

George Blumer, M.D., New Haven,  
D. Chester Brown, M.D., Danbury,  
B. Austin Cheney, M.D., New Haven,  
James D. Gold, M.D., Bridgeport,  
Frederick G. Graves, M.D., Waterbury,  
Elias Pratt, M.D., Torrington,  
Thomas Murdock, M.D., Meriden,  
Nathaniel Selleck, M.D., Danbury,  
Walter R. Steiner, M.D., Hartford,  
Daniel Sullivan, M.D., New London,  
Stella H. Netherwood, *Secretary*.

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## - NEWS -

*from County Associations*

### FAIRFIELD

Dr. George E. Staub, 68, of New Milford died in the Stamford Hospital on November 24. Dr. Staub had practised in New Milford for more than 40 years.

Dr. Louis H. Nahum, Assistant Professor of Physiology, Yale University School of Medicine, presented a paper before the Bridgeport Medical Association on November 9, his subject being "Comments on the Coronary Arteries from the Clinical Standpoint, with Especial Reference to Prognosis". This paper continued the discussion of the newer concepts of cardio-vascular disease begun at the previous meeting the month before in Darien. On December 7 the same Association was privileged to listen to a paper on "The Application of Plastic Surgery Principles in General Surgery", by Dr. Jerome P. Webster, Assistant Professor of Surgery, Columbia University. The following officers were elected at this meeting for the ensuing year: President, Thomas J. Roche; President-elect, H. R. DeLuca; Vice-President, Leroy Havey; Treasurer, Daniel F. Keegan; Secretary, Ellwood C. Weise.

### HARTFORD

The Medical Information Bureau of the Hartford County Medical Association and the Hartford Medical Society is now furnishing the public, on request, the names of physicians who will provide professional services. The names are



selected on a geographical basis, the patient being furnished with the names and telephone numbers of the three listed member physicians whose home addresses are nearest the patient. The actual contacting of the physicians selected by the patient must be done by the latter.

At the meeting of the Connecticut Public Health Association held in Hartford on December 1, Dr. John A. Wentworth presented the problem of the "Responsibility of the Doctor" and Dr. Millard Knowlton that of "Serum Treatment" in the Symposium on the Treatment and Prevention of Pneumonia. State Health Commissioner Stanley H. Osborn of Hartford conducted a Question Box at the dinner session.

Dr. Theodore H. Sills was elected president of the Newington Business and Civic Association at its second annual meeting on December 2.

Plans are underway for the construction of a new modern building to replace some of the older structures at the Hartford Hospital. The estimated cost will be between \$2,500,000 and \$3,000,000. A new power plant and the necessary equipment for the new building are included in this estimate. Construction will start as soon as the funds are available.

After many years of faithful service Drs. Alfred M. Rowley and Edward R. Lampson have resigned from the active surgical staff of the Hartford Hospital and Dr. Orin R. Witter from the active medical staff. The vacancies thus caused have been filled by Drs. Clinton D. Deming, Donald B. Wells and John A. Wentworth, respectively.

Dr. Mendel Volkenheim, 53, died suddenly in his office in New Britain on November 6. He was a specialist in dermatology, having formerly practised in Hartford.

Dr. Walter J. Robbins, 62, died at his home in New Britain on November 22 after a long illness. Dr. Robbins had been a general practitioner for 37 years.

Dr. Henry L. Helmholtz, professor of pediatrics at the University of Minnesota and the Mayo Foundation, conducted an afternoon clinic at the Hartford Hospital on December 6. His subject was "A Comparison of the Organic Acids as Urinary Antiseptics with Prontylin." Dr. Helmholtz has just returned from a three months' visit to Europe where he attended the International Pediatric Conference held at Rome.

Dr. and Mrs. Lawrence P. Cogswell of West

Hartford announce the birth of a son, Walter Garde Cogswell, born at the Hartford Hospital on December 6.

Dr. Hartwell G. Thompson has been re-appointed to the Health Advisory Council of the Town of West Hartford for a term of three years.

#### LITCHFIELD

Refresher courses in Pediatrics have been given at the Charlotte Hungerford Hospital in Torrington since October 14. As was the case in Windham County last spring, leading pediatricists from different parts of the state have participated in these lectures.

#### MIDDLESEX

Dr. Emily Pierson of Cromwell has just returned from her third visit to the Soviet Union, this time mainly in Siberia. She is giving her impressions in a lecture, full of interest to layman and physician alike.

#### NEW HAVEN

Dr. Charles L. Larkin of Waterbury, Chairman of the Tumor Committee of the State Society, proposed at the recent meeting of the Connecticut Public Health Association that a cancer hospital be established at Yale University. This would provide opportunities for the physicians of Connecticut to acquire the specialized knowledge required in cancer treatment and to keep informed on all new developments in therapeutic investigation, and at the same time it would afford to the victims of this disease in the state the opportunity to secure adequate medical care. The suggestion has provoked considerable discussion in the local press.

Dr. Charles E. Kaufman, 57, town health officer of West Haven, died suddenly at his home on December 3. He attended the Public Health Association meeting in Hartford two days previous to this.

#### NEW LONDON

Word has been received of the opening in New London of a Clinical Diagnostic Laboratory, approved by the State Board of Health. Dr. Carl H. Wies, assisted by Miss Dorothy Loeb, will be in charge. All routine laboratory procedures will be carried out.

#### WINDHAM

Dr. Joseph Lambert, health officer of Danielson, has been critically ill in a New York Hospital.

## • OBITUARIES •

### LEWIS A. SEXTON, M.D.

1876 - 1936

Dr. Lewis Albert Sexton, Superintendent of Hartford Hospital, died December 2, 1936, at the age of 60.

From Oxford Academy, near his place of birth, Pulasky, Tennessee, through his own endeavors, he attended the Academic and Pharmacological Department of Vanderbilt University, graduating from its Medical School in 1906.

His internship at Nashville City Hospital and Riverside Hospital in New York City were followed by his becoming Resident Physician at Willard Parker. He left that situation in 1914 to become Assistant Superintendent of Johns Hopkins Hospital.

Three years later he came to Hartford Hospital as its Superintendent. To this position he most successfully gave untiringly of himself, even during the last years of his very distressing illness.

His ability as a hospital executive received more than local recognition, for at different times he became President of the Connecticut Hospital Association, The New England Hospital Association, and the American Hospital Association.

He also was an editor of *Modern Hospital*.

Outside of the profession, as an active member of various social organizations, he had a wide friendship.

An ardent lover of all out doors, Dr. Sexton had hunted and fished in Laborador, Northwest Canada and Alaska, but he loved the little streams and lakes as well.

With Peattie, "I contend such a fellow has the best out of life".

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### EDWARD QUINTARD, M.D.

1867 - 1936

Doctor Edward Quintard was born in Stamford, Connecticut, January 21st, 1867, the son of

Augustus and Mary Skiddy Quintard. He received his early education at Trinity School, Tivoli-on-Hudson, and abroad, principally in Germany, France and England. Returning to this country, he took up the study of medicine and received his doctor's degree in medicine from the College of Physicians and Surgeons of Columbia University in 1887. Entering practice in New York City, he was very successful, and numbered among his patients some of the most renowned people of the day. In 1904 he was appointed Professor of Medicine at the Post-Graduate School and Hospital, Vice-President in 1908, Medical Director of the Post-Graduate School in 1914, and since 1918 has been Professor Emeritus and Consulting Physician. He was a Fellow of the American College of Physicians, the Congress of Internal Medicine, and the New York Academy of Medicine, a member of the American Medical Association, the Medical Society of the State of New York, the New York County Medical Society, The Connecticut State Medical Society and the Litchfield County Medical Association. He was also a member of numerous clubs and scientific societies. If Doctor Quintard had one outstanding characteristic it was the unbounded enthusiasm with which he entered into things. This applied not only to the way he practiced his chosen profession but to all things he was interested in, and he was a man of many interests. A skilled musician, the author of a number of books of verse and essays, and of late years he had been especially interested in painting. His Knollybrook studio in Norfolk was a rendezvous of art lovers from all over the county and from distant cities every autumn when exhibitions of paintings were held there.

Doctor Quintard was married twice. His first wife, the former Miss Estelle Hayden, whom he married in 1894, died in 1926. In the following year he married Mrs. Lucy P. Jones Flagg, who survives him.

Doctor Quintard's death was sudden and unexpected. He had been attending the annual meeting of the Board of Regents, of which he was one, of the University of the South at Sewanee, Tennessee, and was enroute back to New York, stopping over in Chattanooga, for a day to visit friends, when his death occurred.

Almon W. Pinney, M.D.



# PUBLICATIONS OF MEMBERS OF THE CONNECTICUT STATE MEDICAL SOCIETY

July 1, 1936 to June 30, 1937

**Marcus Backer:** Essential hypertension. II. Constitutional considerations. *Am. J. M. Sc.*, 192:395-404, Sept., 1936.

**Creighton Barker:** A case report (of the last illness and death of George Washington). *Yale J. Biol. & Med.*, 9: 185-187, Dec. 1936.

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Chronic diseases of the pharynx. In *Ibd.*, v. 11, pp. 950-963.

Diseases of the external ear. In *Ibd.*, v. 11, pp. 459-472. Daniel Webster and the hay-fever. *Yale J. Biol. & Med.*, 9:393-402, May, 1937.

**Stanhope Bayne-Jones:** The Yale University School of Medicine; the educational program for a technical and idealistic profession. *Yale Scient. Mag.*, 11:4-7, 21-22, Fall, 1936.

(Compiled, with A. E. Anderson) *Journal of bacteriology*. Index, authors and subjects, vol. 1, 1916 to Vol. 30, 1935. Prepared for the Society of American Bacteriologists. Baltimore, The Williams and Wilkins Company, 1937, 277 pp.

**Eugene Maurice Blake:** Anatomy of the sclera. In the eye and its diseases by 82 international authorities, edited by Conrad Berens, pp. 45-46, Philadelphia and London, W. B. Saunders Company, 1936.

Operations on the lens. In *Ibd.*, pp. 1094-1113.

Abstracts of articles in *Rassegna italiana d'Ottalmologia*, 4-5:1936-37, for *Am. J. Ophth.*, ser. 3, 19-20: 1936-37.

(With A. Gessell). Twinning and ocular pathology, with a report of bilateral macular coloboma in monozygotic twins. *Arch. Ophth.*, 15: 1050-1071, June, 1936.

**Francis Gilman Blake:** (With H. Shilonsky) Arthritis psoriatica; report of a case. *Ann. Int. Med.*, 10:537-546, Oct., 1936.

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**George Blumer:** Pericarditis episternocardica. (7th Frank Billings lecture read before sect. on practice of med., 87th annual session, *Am. M. Assn.*, Kansas City, May 13, 1936). *J. Am. Med. Assn.*, 107:178-181, July 18, 1936.

(Edited in collaboration) *The practitioners library of medicine and surgery*, v. 11-12. New York, London, D. Appleton-Century Company, Inc. (C1937).

(With R. R. Nesbit) A case of gonococcal septicaemia with endocarditis and hepatitis. *Internat. Clinics*, Ser. 46, 4: 44-48, Dec., 1936.

**Norton Canfield:** Foreign bodies in the food and air passages; resume of sixty-two cases including one of special interest. *J. Connect. M. Soc.*, 1:239-242, May, 1937.

**Ernest Caulfield:** Bile Peritonitis in Infancy. *Am. J. Dis. Ch.*: Dec., 1936.

John Walton, Yale 1720: *Yale J. Biol. & Med.*, Mar., 1937.

**Louie Nixon Claiborn:** (With L. S. Goodman and A. J. Geiger) Studies in pernicious anemia: Surgical elimination of gastro-intestinal factors. (*Proc. 28th annual meeting, Am. Soc. Clin. Invest.*, May 4, 1936.) *Ibd.*, 15:474, July, 1936.

**Frank Hallock Couch:** (With J. C. Fox, Jr.) Spontaneous nystagmus — a study in neural rivalry and competition. In *Psychological studies of human variability*, edited by Walter R. Miles, pp. 250-267. (*Psychological monographs*, v. 47, No. 2.) Princeton, N. J., and Albany, N. Y., Published for the American Psychological Association by Psychological Review Company (1936). (Dodge commemorative number.)

**Harvey Cushing:** Corrigenda and addenda to "The Life of Sir William Osler". (Oxford University Press, 1937.) 8 pp.

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**Michael D'Amico:** (With E. C. Dunham): Physical status of two hundred and nineteen Pueblo Indian children. *Am. J. Dis. Child.*, 53:739-749, March, 1937.

**Edgar Van Norman Emery:** First interviews as an experiment in human relations. *Am. J. Orthopsychiat.*, 6: 268-282, April, 1936.

**Theodore Schlosser Evans:** (With T. G. Klumpp): Monocytic leukemia; report of eight cases. *Arch. Int. Med.*, 58:1048-1066, Dec., 1936.

**James Charles Fox, Jr.:** (With F. H. Couch): Spontaneous nystagmus — a study on neural rivalry and competition. In *Psychological studies of human variability*, edited by Walter R. Miles, pp. 250-267. (*Psychological monographs*, v. 47, No. 2.) Princeton, N. J., and Albany, N. Y., Published for the American Psychological Association by Psychological Review Company (1936). (Dodge commemorative number.)

Photographic records of the eye movements under varying conditions of health and disease. (*Demonstration.*) *Tr. Am. Neurol. Assn.*, 1936, 62: 137-138 (1937).

(With H. M. Zimmerman and G. R. Cowgill): Neurologic manifestations in vitamin G (B<sub>2</sub>) deficiency; an experimental study in dogs. *Arch. Neurol. & Psychiat.*, 37: 286-306, Feb., 1937. Appeared originally in abstract, *Tr. Am. Neurol. Assn.*, 1936, 62:79-83 (1937).

- Leonard Greenburg:** Tuberculosis among workers in dusty trades. Routing tuberculosis from its last strongholds; addresses presented at the annual conference of State and local committees on tuberculosis and public health, State Charities Aid Association, New York City, 1936: pp. 13-21.  
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Dangerous dust; the silicosis hazard in American industry. Survey graphic, 25:664-668, Dec., 1936.
- Benedict Richard Harris:** (With R. Hussey): The electrocardiographic changes following coronary artery ligation in dogs. Am. Heart J., 12:724-735, Dec., 1936.
- Marion Edith Howard:** (With M. J. Strauss): Influence of serum on the Frei test. Arch. Dermat. & Syph., 34:816-827, Nov., 1936.
- Edward Lee Howes:** (With P. J. Vivier): The relation of diet to the occurrence of gastric lesions in the rat. Am. J. Path., 12:689-700, Sept., 1936.  
(With G. E. Lindskog). Cervical rib associated with aneurysm of the subclavian artery; report of a case and review of the recent literature. Arch. Surg., 34:310-319, Feb., 1937.
- Ralph Hathaway Jenkins:** (With C. L. Deming and G. van Wagenen): The effects of the estrogenic hormone on the urogenital tract of the male macaque monkey, and upon gonorrheal urethritis in man. Tr. Am. Assn., Genito-Urin. Surg., 1936, 29:485-491.
- Simon B. Kleiner:** Anorectal pain. Med. World, 54: 643-645, Oct., 1936.
- Robert Morton Lewis:** (With E. L. Adler): Gonorrheal vaginitis in children. Am. J. Surg., N.S. 33:529-532, Sept., 1936.  
(With L. Weinstein): The production of vaginal acidity by estrin; its importance in the treatment of gonorrheal vaginitis. Surg., Gynec. & Obst., 63:640-643, Nov., 1936.
- Joseph Irving Linde:** Typhoid fever in New Haven, 1932-1936. Health Monthly Bull., New Haven Dept. of Health, 63, No. 10:2-3, Oct., 1936.  
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- Morton Joseph Loeb:** A conception of diagnosis. Presented before the Midtown Dental Society, Oct. 15, 1936. Dental Outlook, 24:126-129, March, 1937.
- Cyril Norman Hugh Long:** The influence of the pituitary and adrenal glands upon pancreatic diabetes. Harvey Lectures, 1936-37, 32:194-228, 1937.  
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- Christopher J. McCormack:** (With J. D. Pemberton): Lipoma of the Colon. Am. J. Surg., 37, part 2:205-218, Aug., 1937.
- Paul Beattie Mac Cready:** Acute fulminating laryngo-tracheobronchitis. In The Practitioners Library of Medicine and Surgery (Edited by George Blumer and others), V. 11, pp. 1053-1056. New York, London, D. Appleton-Century Company, Inc. (C1937).  
(With R. A. Fenton): Complications of nasal accessory sinus disease. In Ibid., V. 11, pp. 850-868.  
Complications of suppurative otitis media, systemic and intracranial. In Ibid., V. 11, pp. 516-542.  
Diseases of the tonsils and adenoids. In Ibid., V. 11, pp. 964-1002.  
Epistaxis. In Ibid., V. 11, pp. 760-763.  
General considerations concerning the larynx and trachea. In Ibid., V. 11, pp. 1037-1041.  
Histopathology of the nasal and sinus mucosa. In Ibid., V. 11, pp. 678-694.  
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Diseases of the lacrimal apparatus, V. 11, pp. 101-114.  
Diseases of the retina, V. 11, pp. 187-221.  
Diseases of the sclera, V. 11, pp. 115-120.  
Diseases of the vitreous, V. 11, pp. 180-186.  
Glaucoma, V. 11, pp. 282-302.  
Ocular manifestations of constitutional diseases, V. 11, pp. 363-387.
- John Cornelius McNerney:** Congenital atresia of the aortic orifice. Yale J. Biol. & Med., 9:229-231, Jan., 1937.
- Harold Myers Marvin:** The prevention of heart disease. In The Practitioners Library of Medicine and Surgery. (Edited by George Blumer and others), V. 12, pp. 759-765. New York, London, D. Appleton-Century Company, Inc. (C1937).
- Gordon Bostwick Maurer:** (With D. L. Dial): Intracranial aneurysms; report of 13 cases. Am. J. Surg., n.s., 35:2-21, Jan., 1937.

(To be continued)



## • Quarto Notes •

### PRACTICAL TALKS ON KIDNEY DISEASE

by Edward Weiss, M.D.

Professor of Clinical Medicine

Temple University School of Medicine, Philadelphia

Pp. 176 — Price \$3.00 Cloth

Springfield, Ill. C. C. Thomas 1937

This small volume is quite a readable little book and in its 200 odd pages covers the ground of kidney disease just about as it purports to in the preface. The author states he is not trying to write a book to replace Fishberg's "Hypertension and Nephritis", but merely to survey the same field in a much more condensed and concise fashion. The ramifications of Bright's Disease are forever being newly defined and unraveled without much success, but Dr. Weiss, in the light of present knowledge and research, has done as good a job as can be done.

The book is clearly written, practical and to the point. Certain fundamental concepts such as the importance of repeated concentration tests, the fallacy of the old teaching that pathological and clinical findings could not be correlated, and the broad modern concept of therapy involving the patient's entire makeup are emphasized again and again. There are several good tables summarizing the differential points between the various types of retinitis, hypertension and nephritis; and there are a few excellent illustrative case-reports. Any one interested in coming to a correct and finer diagnosis of cardio-vascular-renal disorders will find this book a great help.

C. T. Bingham



### SYPHILIS

#### The Next Great Plague to Go

by Morris Fishbein, M.D.

Editor, Journal of the A. M. A., Editor, Hygeia

Pp. 70 — \$1.00

Philadelphia David McKay Co. 1937

This pamphlet is a concise review of Syphilis taking up its history, etiology, pathology, mode of transmission together with its prevention and treatment. It is written in a simple easily digestible manner for the layman primarily and is accompanied by good explainable charts and illustrations.

This treatise is a resume of the periodicals published by the U. S. Public Health Service under the direction of Dr. Thomas Parran together with those of the American Social Hygiene Association and other publications in their endeavor to educate the public in the eradication of Syphilis. It is a well written book for the public in general and should be a part of the reading material in the doctor's waiting room.

B. L. Salvin

### INTRODUCTION TO CLINICAL PSYCHOLOGY

For Students of Medicine,  
Psychology and Nursing

by Edward M. Westburgh, Ph.D.

Chief of Psychological Service of the Institute and  
of the Department of Mental and Nervous  
Diseases, Pennsylvania Hospital

\$3.50

Philadelphia P. Blakiston's Son & Co., Inc. 1937

As an aid to those who are trying to guide and readjust individuals to themselves and to their environment, this volume should be helpful. It is intended for those who have had at least introductory courses in general, theoretical, and experimental psychology, and keeps in mind the needs of psychology students, medical students and nurses. The author gives his views, based on personal experiences, of personality deviations and how to keep children and adults in good medical and nervous health, and gives a comprehensive picture of his interests and his point of view in problems of human behavior and adjustments.

In earlier chapters a systematic presentation of the fundamental concepts and techniques in clinical psychology, which are necessary before psychiatrists and medical men can utilize psychology in their work, is made. Later their practical application is shown in correcting personality maladjustments; in changing specific emotional and behavior patterns; and improving the total personal picture. The value of psychoanalysis is stressed and reproduction of the greater part of Freud's article is given.

The appendix contains an outline for the clinical study of personality. Tests of abilities and achievements. Interest and "Personality" scales. Selected bibliographies at the end of the volume are comprehensive and should be of value for the study of advanced clinical concepts and branches of science related to clinical psychology. There is a list of distributors for the various tests suggested by the author.

By the completeness with which this comparatively new subject is covered, the practitioner is offered a psychology that can be applied as an aid to the solution of practical problems in getting and keeping people well.

W. Weissenborn



### "THE POST MORTEM EXAMINATION"

by Sidney Farber, M.D.

\$3.50

Springfield, Ill. C. C. Thomas 1937

The author states in the preface that this book is intended to make available an orderly presentation of the methods used in the performance of a complete autopsy.

There is an interesting historical introduction followed by many chapters dealing with general considerations and detailed examination of the body as a whole and the individual viscera, with chapters devoted to technique in special cases and post mortem examinations of infants and children.

The book is a carefully written, concise, clear manual that should prove a distinct benefit to medical students

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and house officers, especially if read before and used in conjunction with the actual performance of post mortem examinations.

P. T. Hough

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### CLINICAL URINALYSIS AND ITS INTERPRETATION

Dr. Robert A. Kilduffe, A.M., M.D., F.A.S.C.P.

Director of Laboratories

Atlantic City Hospital

Pp. 428                      40 Illustrations                      \$4.00

Philadelphia              F. A. Davis Co.                      1937

This work is divided into three parts: The first part describes the normal kidney and its functions and the composition of normal urine. The second section is devoted to clinical urinalysis and its interpretation, while the third deals with formulae for test solutions, miscellaneous tables and the equipment of the office laboratory for urinalysis.

Dr. Kilduffe emphasizes that laboratory procedures are essentially merely phases of the general examination of the patient. In other words, the laboratory result is but one link in a chain, and a correct interpretation of its significance must include consideration of the clinical history and physical examination. Some excellent clinical pointers not usually obtained from a textbook are brought out in this work. The author calls attention to the variability of the finding when only a single specimen is examined. "So great is the renal reserve capacity that often urinary evidence is found only when damage to the renal structure has been relatively extensive, and sometimes only when an extra and unusual burden has been thrown upon the kidney."

The interpretation of urinary findings for purposes of differential diagnosis is presented in a clear, systematic and sensible manner. Concerning albuminuria, the author states, "The clinical interpretation of albuminuria depends, not upon its demonstration, but upon the careful consideration of all the factors pertaining to the particular case." Of glycosuria, he calls attention to Joslin's dictum that "no diabetic can ingest two consecutive meals containing an ample supply of carbohydrate without resultant glycosuria." In discussing casts, Dr. Kilduffe feels that the type of cast is of more importance than the number. For example, hyaline casts in small numbers possess little clinical significance.

On the whole, this book represents a distinct contribution in its field, first, because it is complete, and secondly, because it correlates the interpretation of laboratory findings with the clinical aspect of medicine. Its place as a valuable and convenient reference book for the clinician is therefore assured.

A. M. Schaefer

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### SHADOW ON THE LAND

by Thomas Parran, M.D.

Surgeon General, U. S. Public Health Service

\$2.50

New York    Reynal & Hitchcock, Inc.    1937

As surgeon general of the United States Public Health Service and as former Health Commissioner of

New York, Dr. Parran has been in the foremost rank of those who have attempted to acquaint public health boards, practising physicians and the lay person with the enormity of the syphilis problem in America. *Shadow on the Land* is a clear, forcefully written book about syphilis, its implications for the individual and the nation and reasonable and possible ways of treating, controlling and finally eliminating it. The illustrations in the book are striking, easily understood pictorial charts.

The first three chapters deal with the origin of syphilis, the present day knowledge of the disease and its prevalence and trend. Then follows a resume of early beginnings in the fight against it in America.

In order that we in America may know that the eradication of the disease is not an impossibility, Dr. Parran goes on to describe the Scandinavian experience which has been so remarkably successful in its results. If a similar program had been carried out in the United States for the past decade our sixty thousand annual cases of congenital syphilis would have been reduced to two thousand six hundred cases. At present the annual incidence of newly recognized syphilis in the United States is 796 as opposed to 20 in Denmark and 7 in Sweden per 100,000 population.

He next pictures the present day scene in this country illustrating by citing the programs being carried out in different states, some of the large cities and in some large employment organizations, most of which have been steps in the right direction, but which have stopped before the goal has been reached. Stumbling blocks in the way are pointed out in our past and present methods of treatment, but Dr. Parran outlines a definite platform of action, not too difficult to carry out which would lead to far more satisfactory results. He boils his platform down to a simple formula: Teamwork of government, professions, industry and citizens, money for drugs and facilities, and trained personnel for finding cases, for treating cases, and for teaching the nation the importance of doing these things and doing them well, equals the eradication of syphilis.

L. B. Hubbard, R. N.

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Assistant in Obstetrics and Gynecology.

University of Illinois College of Medicine

Pp. 261

St. Louis

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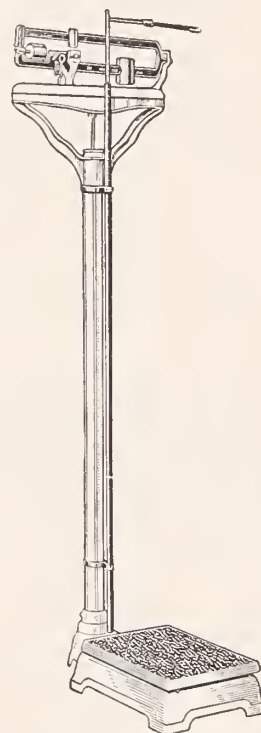
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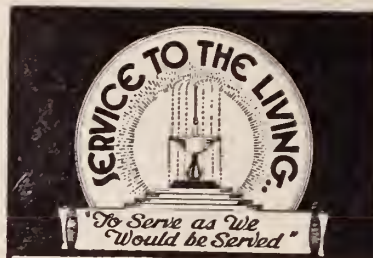
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N. Y. State Jour. Med., June 1935, Vol. 35, No. 11  
Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3  
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

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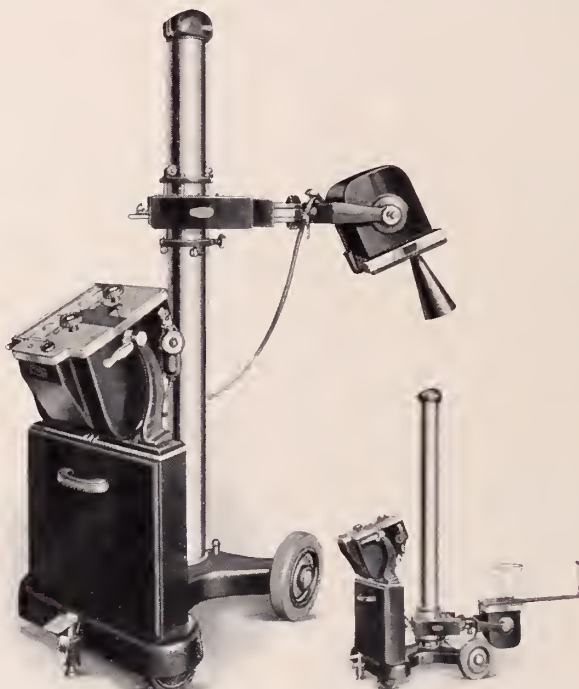


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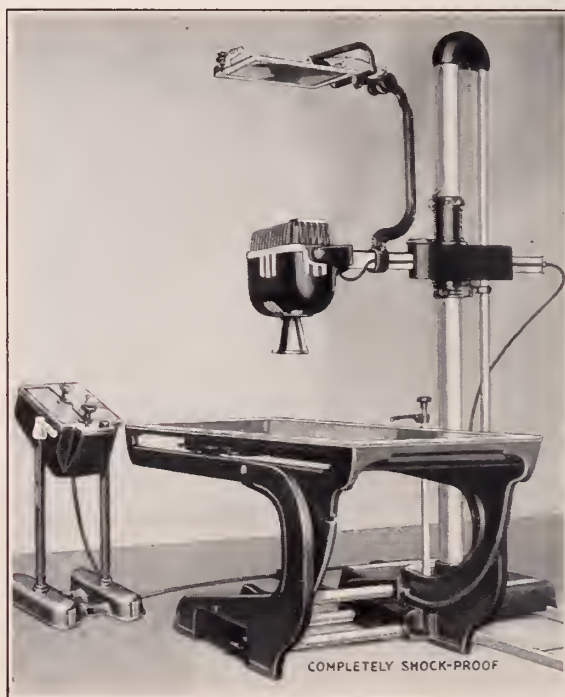
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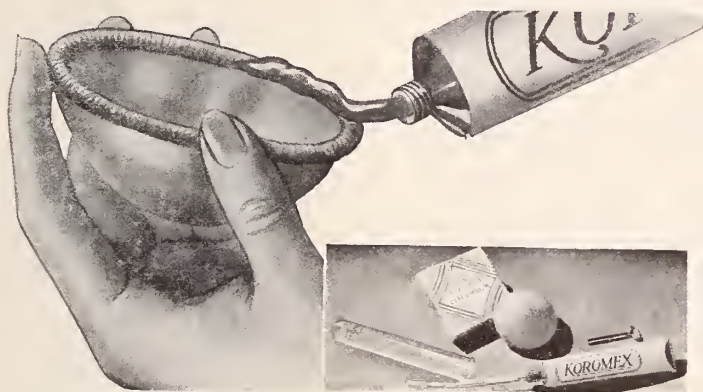
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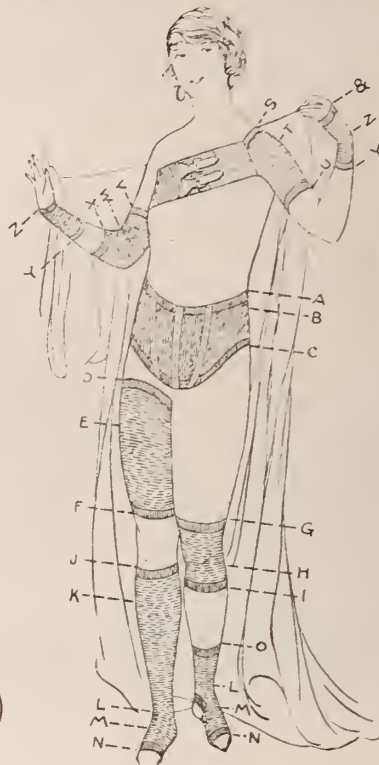
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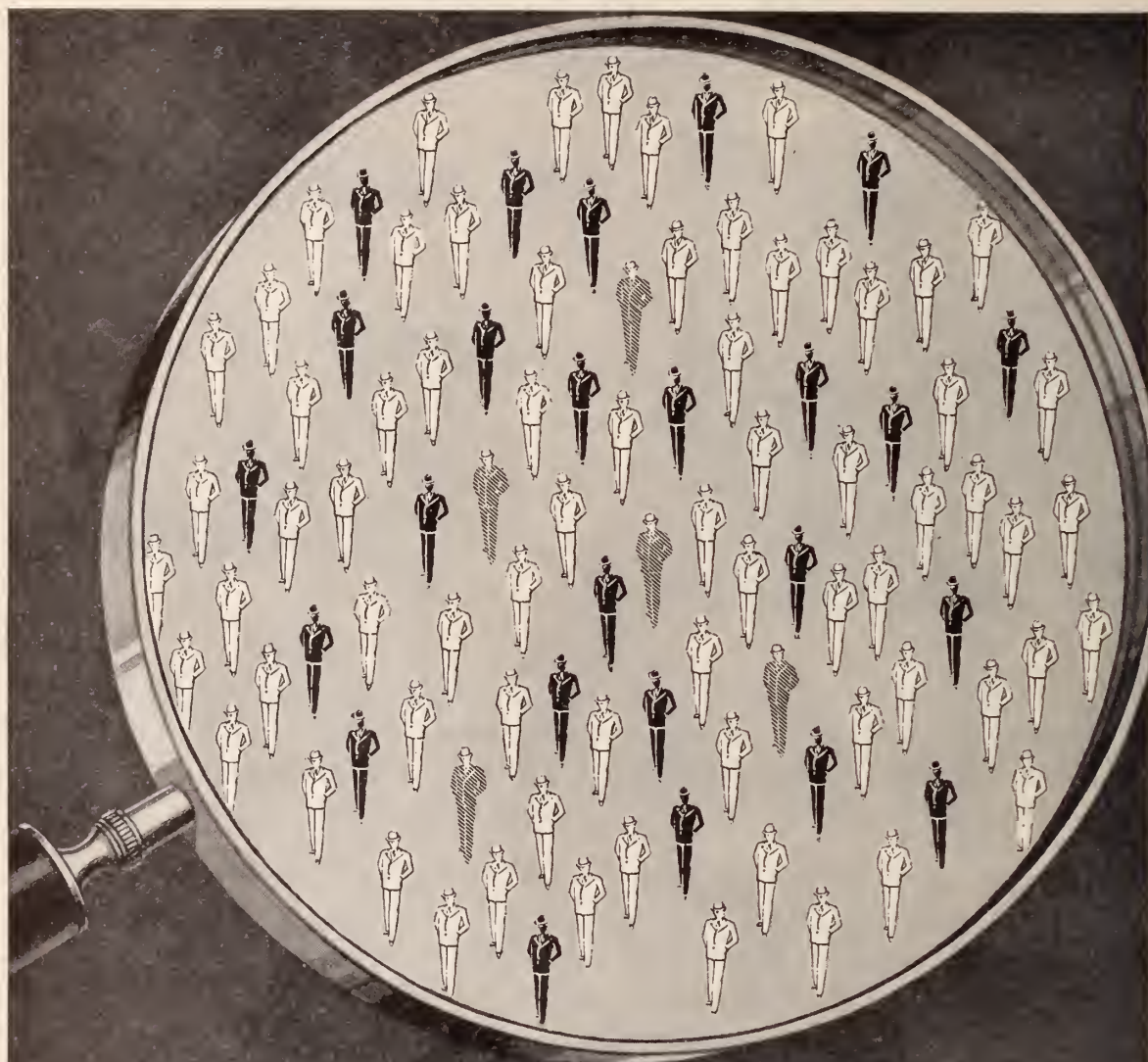
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VOL. II.

FEBRUARY, 1938

No. 2

## The Value of Roentgenologic Study in the Diagnosis of Heart Disease\*

GEORGE LEVENE, M.D., F.A.C.R., Boston, Mass.\*\*

Roentgenologic study is more than a means of determining the size and shape of the heart. By careful fluoroscopic examination it is possible to learn many important factors about the functional activities of the heart, to derive useful information diagnostic of various valve-lesions, to detect the more common arrhythmias and, in short, to add considerable weight to the findings gained by other methods of examination.

Study consists of careful fluoroscopic examination as well as measurement of the teleroentgenogram.<sup>1</sup> It is our practise to first count the rate of cardiac contractions by timing with a stopwatch the duration of 20 beats of the auricle and of the ventricle. This serves to detect irregularities of conduction or contraction. Observations are then made pertaining to the rhythm of the entire left border and the amplitude of contractions of its component parts, as well as of the great vessels and lung-root shadows. The patient is studied in the various oblique and lateral positions, and from these findings it is usually possible to establish a tentative cardiac diagnosis.

A few simple rules may be of assistance in establishing a method of analysis of roentgen findings:

1. The cause of enlargement of any particular chamber is always distal to the enlargement. Thus, enlargement of the right auricle is due to disease of the tricuspid valve or left side of the heart. Enlargement of the right ventricle is due to interventricular septal defect, pulmonary stenosis or mitral disease. Enlargement of the left auricle is due to disease of the mitral valve, while enlargement of the left ventricle finds its cause in the aorta: aortic stenosis, aortic insufficiency or hypertension.

2. Mitral disease usually causes an increase in the transverse diameter of the heart.

3. Aortic disease usually causes an increase in the length of the heart.

### Measurements

While measurements<sup>2 3</sup> are used very little at present in our examinations, we have found them useful in developing a system of diagnosis.<sup>4</sup> The

\*Delivered at the Annual Meeting of the Connecticut State Medical Society, Bridgeport, May 19, 1937.

\*\*Director, Department of Roentgenology, Massachusetts Memorial Hospitals, Boston.

beginner derives useful experience in measuring a film since it results in greater familiarity with certain anatomical markings on the roentgen silhouette. This assists him in classifying various cardiopathies according to their typical enlargements. We shall describe the measurements most useful in our earlier work.

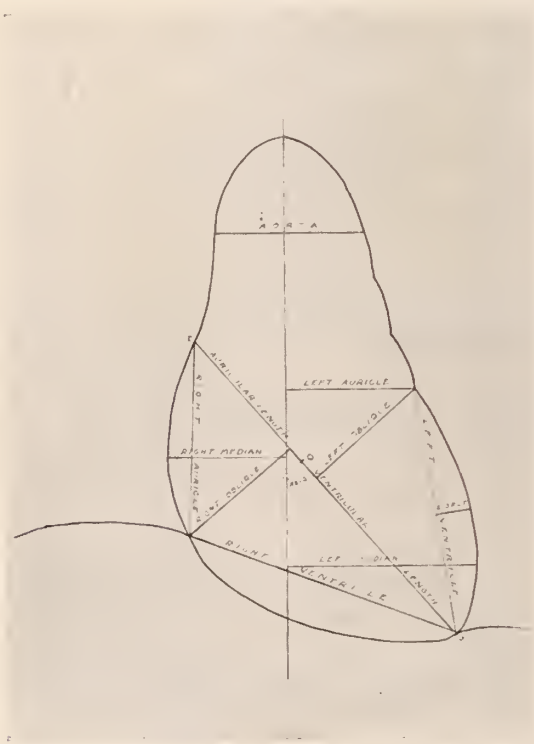


Fig. 1. Heart Measurements (after Vaquez).

A line drawn through the center of the spinous processes serves as a mid-line (Fig. 1). Perpendiculars erected to the mid-line from the point of greatest width of the heart shadow on the right, and on the left, give the right and left median diameters. The left is usually twice as long as the right. According to Dietlen,<sup>5</sup> the ratio is, in man, standing, 1:1.9; reclining, 1:2.1; in woman, reclining, 1:2.4. Their combined length is usually not over 50-60 per cent of the pulmonary field at its greatest width, establishing the so-called "cardiothoracic ratio." The median diameters correspond approximately to the width of the heart as determined by clinical percussion.

The apex of the heart is usually situated at the point where the cardiac outline crosses the left diaphragm, though in occasional enlargements

its position may vary, and its exact localization be obtained only by fluoroscopic examination.

A line drawn from the apex to the junction of the right auricle and vascular arc determines the length of the heart. The angle formed by this line and the mid-line shows the degree of rotation of the heart on its vertical axis. The importance of this measurement may be understood when it is recalled that the greater the angle, the farther out will be the apex. As in obesity, ascites, etc., the heart is pushed up, the angle becomes greater; and, while the transverse diameter of the heart may exceed its normal value, measurement of the axis shows this to be due to displacement, rather than enlargement. In the sthenic individual this angle varies between 50 and 70 degrees; in the asthenic type it ranges between 45 and 50 degrees.

A line dropped perpendicularly to the line measuring the length of the heart, from the junction of the left auricle and left ventricle, and from the cardio-hepatic angle, establishes, respectively, the left and right oblique diameters. These correspond more nearly to the width of the heart at its base.

The roentgenographic silhouette of the heart being composed of auricles and ventricles, it is useful to know how much of the total area is due to each. An "index of auriculo-ventricular ratio" is thus obtained by bisecting the length of the heart by a line joining the cardio-hepatic angle on the right and the auriculo-ventricular junction on the left.<sup>6</sup> The value of the upper segment is divided by the value of the lower segment, and, in normal hearts, is found to vary between 0.534 and 0.705. In conditions producing a preponderant enlargement of the ventricles, the index falls to 0.400-0.200. In conditions producing a preponderant enlargement of the auricles, the index rises to 0.800 or 1.000. The index of auriculo-ventricular ratio, as will be shown, is often of great value in establishing a differentiation of various cardiopathies, and in some instances points to a lesion in the absence of other roentgenologic evidence.

A line joining the apex with the auriculo-ventricular junction on the left, reveals the size of the left ventricle, and a perpendicular to this line erected at the point of greatest salience of the ventricular curve, establishes a bisector of its arc, with a value equivalent to the development of the left ventricular myocardium. In ventricu-



lar hypertrophy the bisector is large.

A perpendicular to the mid-line from the auriculo-ventricular junction shows the extent of the left auricle and its length varies with the size of the chamber.

A line joining the cardio-hepatic angle and the apex measures the size of the right ventricle.

A line joining the point of junction of the right auricle and vascular arc with the cardio-hepatic angle shows the development of the right auricle.

It thus becomes possible, on the basis of these measurements, to establish to what extent each chamber of the heart enters into a particular picture of cardiac enlargement. Having determined which chamber of the heart is enlarged, it is then possible, by further observation directed toward the detection of particular fluoroscopic appearances characteristic of definite lesions, to establish an anatomical and functional diagnosis.

Roentgenoscopic examination in the various oblique and lateral positions is made of all cases, and films in these positions obtained when indicated. The barium meal is occasionally administered as an aid in the interpretation of enlargement or displacement which often produce pressure deformities of the oesophagus.

### Mitral Stenosis

In mitral stenosis there is a narrowing of the mitral orifice. This results in an increased pressure within the left auricle. The musculature of the latter is comparatively thin and so the chamber dilates. This dilatation is almost always perceptible in the frontal position where it produces a prominence of the third arc (Fig. 2). It is also readily noted in the right anterior oblique position where the chamber is seen to encroach upon the posterior mediastinal space. It may be helpful to a beginner to have the patient swallow a drink of barium sulphate which will better visualize this enlargement by virtue of the pressure defect produced upon the oesophagus by the auricle. The increased pressure arising within the left auricle is transmitted through the valveless pulmonary veins to the lungs where it results in a variable degree of congestion. This is seen principally as infiltration radiating from the lung roots in more or less fan-shaped fashion and is an important factor in the confusion which frequently arises in the differential diagnosis of pulmonary tuberculosis and mitral stenosis. The left ventricle receives less

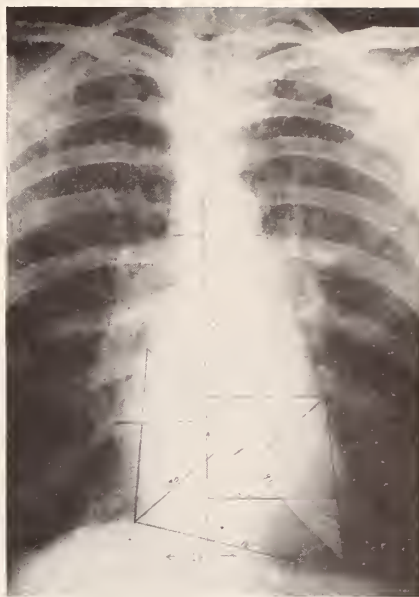


Fig. 2. Mitral Stenosis. Note increase of auricular area, the small, pointed left ventricle and pulmonary congestion.

than its normal amount of blood and so it does not enlarge; at times, there is an actual atrophy of the ventricle. Measurement of the film will show an increased value of the auricle, diminished value of the left ventricle and a high index of auriculo-ventricular ratio. In long-standing cases, calcification of the valves may be demonstrated (Fig. 3).

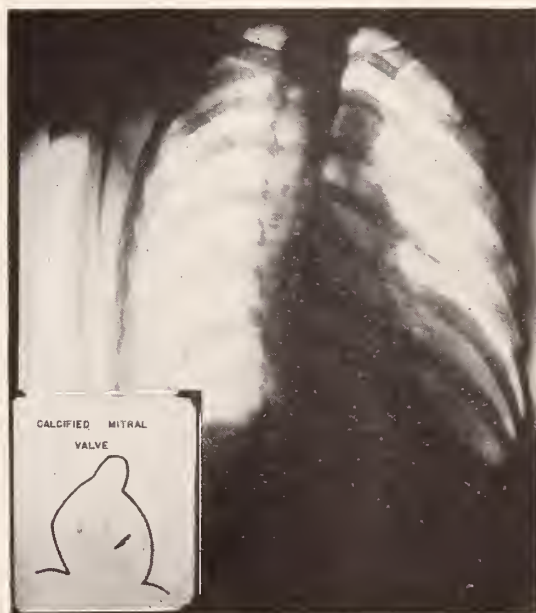


Fig. 3. Calcified Mitral Valve (rheumatic heart disease.)



### Mitral Insufficiency

In mitral insufficiency there is a regurgitation of blood into the left auricle during ventricular systole. This results in dilatation of the auricle, which contains more than a normal amount of blood. During auricular systole, the latter discharges this increased volume into the left ventricle, so that the latter dilates. An increased load is thrown upon the right ventricle which ultimately enlarges, producing an increase in the transverse diameter of the heart (Fig. 4). Because of preponderant ventricular enlargement, the index of auriculo-ventricular ratio is lowered. Pure, organic mitral insufficiency rarely exists alone.

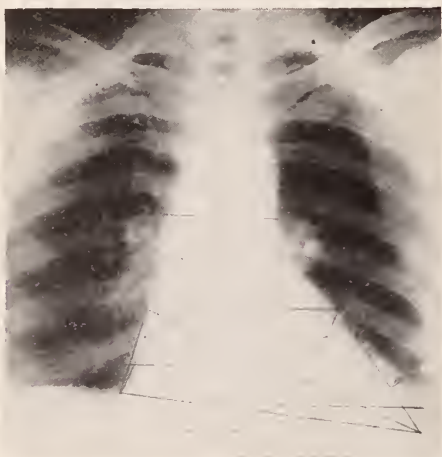


Fig. 4. Mitral Insufficiency. There is an increase in the transverse diameter of the heart.

### Mitral Stenosis and Insufficiency

The combination of mitral stenosis and insufficiency is undoubtedly the commonest form of mitral involvement. It is our opinion that where both these changes exist, stenosis is usually the first to occur. This results in dilatation of the left auricle, a small, pointed left ventricle, a high index of auriculo-ventricular ratio and pulmonary congestion. When insufficiency develops, it adds to these changes an increase in the transverse diameter of the heart (Fig. 5). The index, which was raised by stenosis, is now lowered by insufficiency, so that its value may lie within the normal range. As a general rule, however, it tends toward, or exceeds the high value. It is never low in organic mitral disease.

### Aortic Stenosis

Aortic stenosis produces a narrowing of the aortic orifice as a result of which, blood is re-

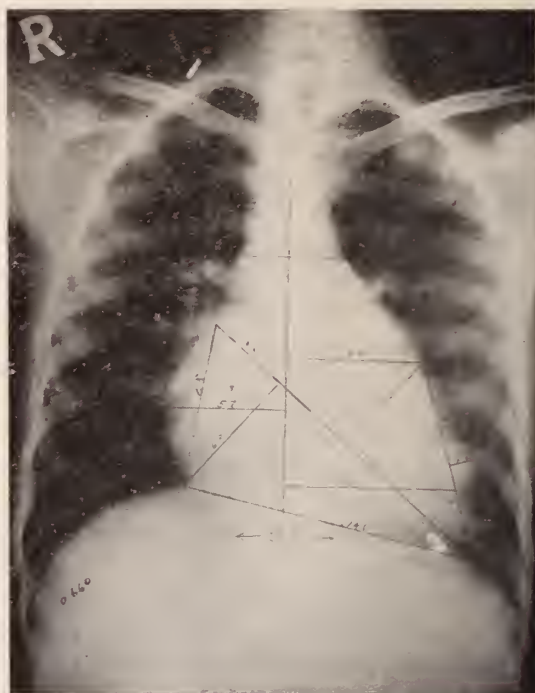


Fig. 5. Mitral Stenosis and Insufficiency. Note the auricular enlargement and small, pointed ventricle due to stenosis and the increase in transverse diameter due to insufficiency.

tained in the left ventricle. The latter, therefore, dilates. In order to expel these larger amounts of blood through the narrowed orifice, the wall of the left ventricle undergoes considerable hypertrophy. This is shown on the film (Fig. 6) by an increase in the length of the heart due to enlargement of the left ventricle, and an appreciable increase in the thickness of the left ventricular myocardium. The index of auriculo-ventricular ratio is lowered. Fluoroscopically, one sees slow, vigorous contractions of the left ventricle together with diminished amplitude of aortic pulsations. Aortic stenosis produces the greatest hypertrophy of any of the heart lesions.

### Aortic Insufficiency

Immediately following systole, there is a regurgitation of blood back from the aorta to the left ventricle. At the same time, the latter is receiving blood from the left auricle. This results in considerable dilatation of the left ventricle. The heart is therefore increased in length, and the index of auriculo-ventricular ratio is lowered (Fig. 7). Under the fluoroscope the typical "water-hammer" pulsations are observed, unless there is an associated lesion which

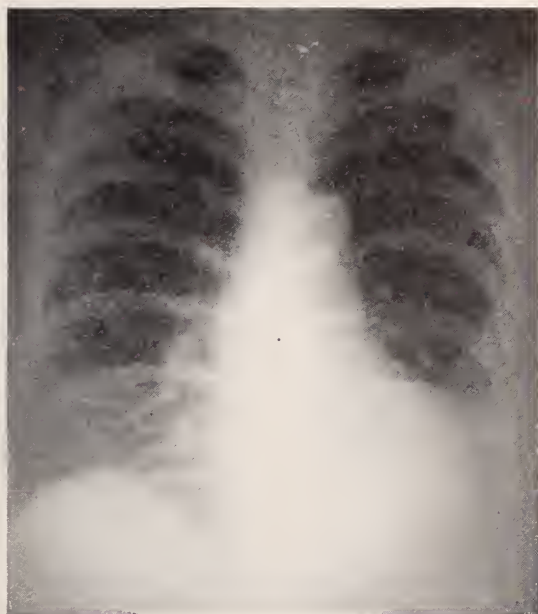


Fig. 6. Aortic Stenosis. There is marked hypertrophy of the left ventricular myocardium and dilatation of the chamber. The amplitude of ventricular contractions is vigorous while aortic pulsations are diminished.

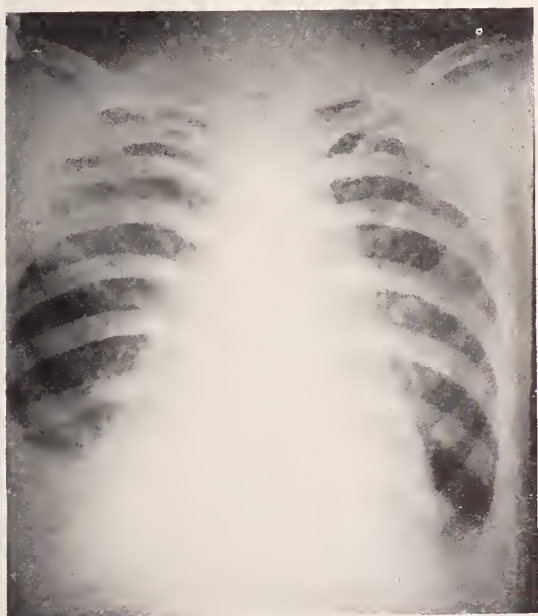


Fig. 7. Aortic Insufficiency. There is dilatation of the left ventricle producing an increase in the length of the heart. The apex is therefore lowered. "Water-hammer" pulsations are observed under the fluoroscope.

may mask this finding. The aorta is seen to show a slow systolic expansion with an abrupt diastolic collapse.

### Tricuspid Insufficiency

Tricuspid insufficiency is often a terminal lesion and almost always follows disease of the left side of the heart. While organic insufficiency of the tricuspid valve is a rare occurrence, relative incompetence is quite common. The heart is usually much enlarged (Fig. 8). There is an

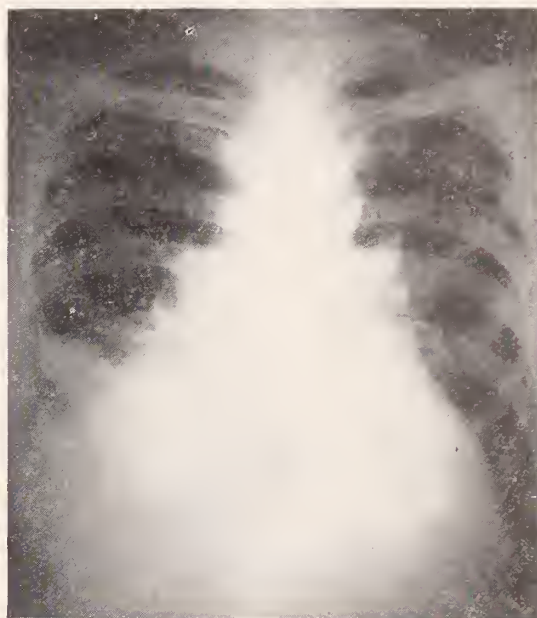


Fig. 8. Tricuspid Insufficiency is usually functional or relative. The right ventricle is dilated. Systolic pulsations of the superior vena cava are observed under the fluoroscope.

increase in the transverse diameter due to dilatation of the right ventricle, associated with other marked changes, which latter depend upon the antecedent cardiopathy. Fluoroscopically, one observes pulsations of the superior vena cava, due to the transmission of a pulse-wave through the incompetent tricuspid valve. There is pulmonary congestion and, not infrequently, an accumulation of fluid at the base. The right diaphragm is elevated, due to congestion of the liver. The amplitude of ventricular contractions is definitely diminished.

The degree of pulmonary congestion in these cases is frequently less than what is observed in left-sided heart failure alone. This is probably due to the fact that in the former condition blood is allowed to back up into the peripheral



circulation, so that ascites and oedema result. The lesser circulation, however, is relieved.

### Pulmonary Stenosis

This condition may be an accompaniment of rheumatic valvular disease or, more frequently, it may be of congenital origin. Due to the narrowing of the pulmonary valve, there is an increased pressure in the right ventricle, resulting in hypertrophy. The film (Fig. 9) shows an increased prominence of the shadow of the pulmonary artery with hypertrophy of the right ventricle. Systolic pulsations of the lung-roots are observed fluoroscopically. The condition is most frequently associated with interventricular septal defect.

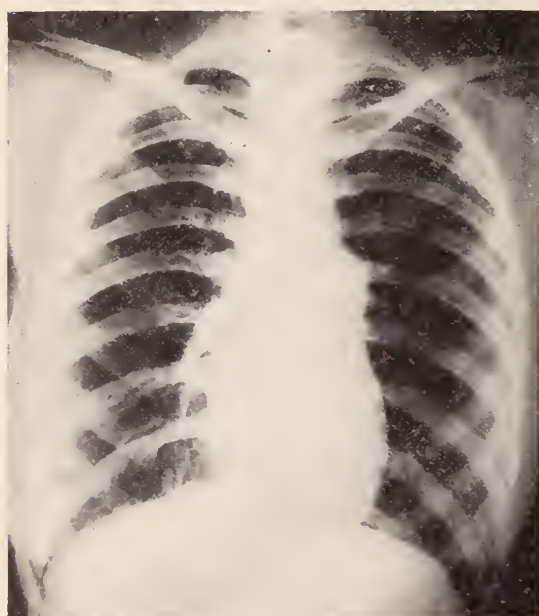


Fig. 9. Pulmonary Stenosis. There is an increased prominence of the shadow of the pulmonary artery with hypertrophy of the right ventricle. Systolic pulsations of the lung-roots are seen under the fluoroscope.

### Hypertension

Increased peripheral resistance in hypertension calls for increased work on the part of the left ventricle. This demand is met by hypertrophy of the ventricular myocardium (Fig. 10). There is an increase in the length of the heart, an increase in the value of the bisector (which measures the thickness of the left ventricle) and a low index of auriculo-ventricular ratio. Fluoroscopically, one observes an increased amplitude of ventricular and aortic pulsations. At times, the innominate artery also may be seen to pulsate.



Fig. 10. Hypertension. There is hypertrophy of the left ventricular myocardium with an increased prominence of the arc of the ascending aorta. Vigorous pulsations are observed in both these regions. Later there is an increase in the transverse diameter of the heart with a relative mitral incompetence.

### Relative and Organic Insufficiency

At this point it may be well to consider differentiation between organic mitral insufficiency and relative incompetence of that valve<sup>7</sup>. In the former, there is structural change of the leaflets, cordae tendonae and papillary muscles as a result of shrinking, scarring and puckering incidental to inflammatory changes. In the latter, there is an absence of structural change; the ring is merely stretched as a result of ventricular relaxation following continued demands for more work on the part of the left ventricle. In consequence of this relaxation, the normal leaflets become inadequate to seal effectually the enlarged orifice. Organic mitral insufficiency rarely exists alone in the pure state; it usually accompanies stenosis. These cases (Fig. 5) show an enlarged left auricle, a comparatively small, pointed left ventricle and a high index of auriculo-ventricular ratio (which results from auricular dilatation). While there is an increase in the transverse diameter of the heart (which is present in any form of mitral insufficiency) the changes are quite different from those observed in relative incompetence. Here, there is usually



evidence of a state calling for more work on the part of the left ventricle, which is shown by hypertrophy of its wall. The apex is frequently rounded and elevated from the diaphragm (Fig. 11). Since there is no auricular dilatation as occurs with mitral stenosis, the index of auriculo-ventricular ratio is lowered. Relative insufficiency of the mitral valve is not an infrequent accompaniment of chronic hypertension, coronary disease or aortic disease. It is thus possible, by careful roentgenologic study, to determine the cause and importance of the apical systolic murmur — a question frequently attended with no little confusion.



Fig. 11. Relative (functional) Mitral Insufficiency (compare with Fig. 5). Increase in transverse diameter is associated with hypertrophy of the left ventricular myocardium. The apex is rounded and elevated from the diaphragm. There is a preponderance of ventricular area. From a case of cardio-renal hypertension.

### Arteriosclerosis

While arteriosclerosis and hypertension are frequently associated, either may exist independently. In sclerosis alone, the heart is not enlarged and presents no alteration of normal contour (Fig. 12). The changes are confined to the thoracic aorta and to the arteries. The aortic knob is accentuated, and, in later stages, shows a crescentic band of calcification. Fluoroscopically, there is diminished expansion of the

aorta, although the entire arch may show a greater than normal range of motion due to a rocking movement imparted by cardiac contractions. If the patient is examined in the right posterior oblique position, one will observe that the transverse portion of the arch slopes obliquely and upward, from right to left, the angle of inclination being a fair index to the degree of sclerosis.



Fig. 12. Arterio-Sclerosis. There is no change in the size or contour of the heart. There is an increase in the length and tortuosity of the aorta and prominent "knob."

### Aortitis

Obliterative endarteritis resulting from luetic infection produces destructive changes in the wall of the aorta. In consequence there is fragmentation of elastic fibres which are replaced by scar tissue. The process is irregularly disseminated. This produces an irregular contour of the aortic wall, with a loss of elasticity of these structures. The film shows an increase in the width of the aortic shadow (usually above 6.5 cm.) and there is a loss of the smooth parabolic curve normally seen in the ascending aorta. This is replaced by slight localized irregularities along the right border of the ascending portion and the "knob" becomes less well-defined (Fig. 13). Under the fluoroscope there is a slight diminution in the amplitude of aortic pulsations. The heart itself shows no alteration in size or contour.

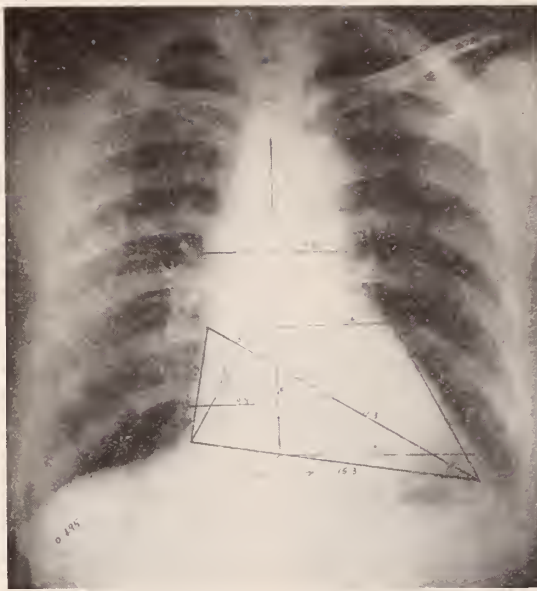


Fig. 13. Aortitis. Note increased width of aortic shadow, the localized irregularities of the ascending portion and the poorly defined "knob."

### Aneurysm

The greatest difficulty in the diagnosis of aortic aneurysm lies in the differentiation from other mediastinal tumors. While many authors describe "expansile pulsations" as a typical find-



Fig. 14. Aneurysm. (Right posterior oblique position). Note how the dilated descending aorta extends beyond the shadow of the spine.

ing in aneurysm, it is our experience that such changes are more apt to be absent than present. This is due to the fact that an aneurysm of even moderate size usually becomes plugged with an organized thrombus through which blood passes in a comparatively small channel. It is therefore necessary to rely upon other findings in diagnosis.

The entire aortic arch is best seen in the right posterior position and careful fluoroscopic examination in this view is usually most suited to show the origin of the tumor mass. With the patient rotated until the apex of the heart just disappears behind the shadow of the spine, the transverse portion of the arch passes horizontally, from right to left, and the shadow of the descending portion blends with that of the spine. Study in this position will not only show the origin of an aortic aneurysm (Fig. 14), but will usually differentiate other confusing causes, such as tortuosity due to sclerosis or mediastinal tumors.



Fig. 15. Thyrotoxicosis. The heart is not enlarged, unless there is an associated cardiopathy. There is a loss of convexity of the left border and increased prominence of the pulmonary artery.

### Thyrotoxicosis

It is frequently possible to suspect thyrotoxicosis by roentgen study of the heart. The classical case shows a heart of normal size in which, however, there is a loss of convexity of the left border and an increased prominence of the shadow of the pulmonary artery (Fig. 15).



Fluoroscopically, one observes a marked increase in the rate and amplitude of cardiac contractions.

The appearance on the film may occasionally be confused with coronary disease, and the diagnosis should not be attempted without screen examination. In general, however, one will note the difference if he measures the vertical distance between the right and left median diameters. It is large in thyrotoxicosis; it is small in coronary disease.

Any suspicion of thyrotoxicosis indicates the need for further clinical and laboratory corroborative procedures.

As the condition progresses it will be noted that there is an increase in the width of the base of the heart. The rate is rapid and the rhythm regular. This stage is so frequently followed by auricular fibrillation that we have termed it "pre-fibrillation." When auricular fibrillation develops there may or may not be a further increase in the width of the base of the heart. At this time, fluoroscopic examination shows a tachycardia with loss of dominant rhythm; contractions are irregular in time and variable in amplitude. It is frequently possible to distinguish auricular fibrillation of thyrotoxic origin from fibrillation due to other causes. The former usually has a much greater amplitude of contractions.

### Myxoedema

The myxoedema heart shows symmetrical enlargement, occasionally not unlike that observed in pericardial effusion. While effusion in myxoedema is by no means uncommon, the typical findings are best described on the basis of pure myxomatous infiltration (Fig. 16). Under the fluoroscope one observes only a moderate diminution in the amplitude of contractions. This is in contrast to what is seen in pericardial effusion, where the amplitude of contractions is markedly diminished, and may even be barely perceptible. Striking corroboration is seen after the administration of thyroid extract. There is a marked reduction in size in a comparatively short time (Fig. 17).

### Pericardial Effusion

Very small pericardial effusions are frequently difficult to recognize. In large effusions there is a loss of normal anatomical land-marks in the cardiac silhouette and the cardiohepatic angle becomes acute (Fig. 18). Under the fluoroscope there is noted a marked diminution in the ampli-

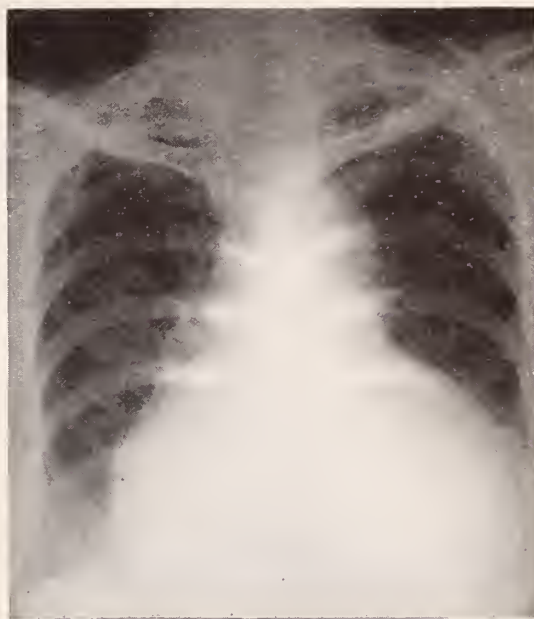


Fig. 16. Myxoedema. There is symmetrical enlargement resembling pericardial effusion (see Fig. 18). The amplitude of pulsations, however, is only moderately diminished.

tude of pulsations of the cardiac borders, and in large effusions they may be imperceptible. If the patient is examined in the vertical and re-



Fig. 17. Same Case as Fig. 16, two months after thyroid medication. The marked reduction in size is typical of these cases.



cumbent positions there will be noted a shift in the level of greatest transverse diameter. This change can also be demonstrated during forced expiration and inspiration. It is best not to attempt a diagnosis of pericardial effusion without fluoroscopic examination, for certain combinations of valvular lesions may so alter the contour as to resemble more or less, a pericardial effusion. In the former, however, the amplitude of pulsations is not diminished: it is frequently increased; in the latter, it is always diminished.

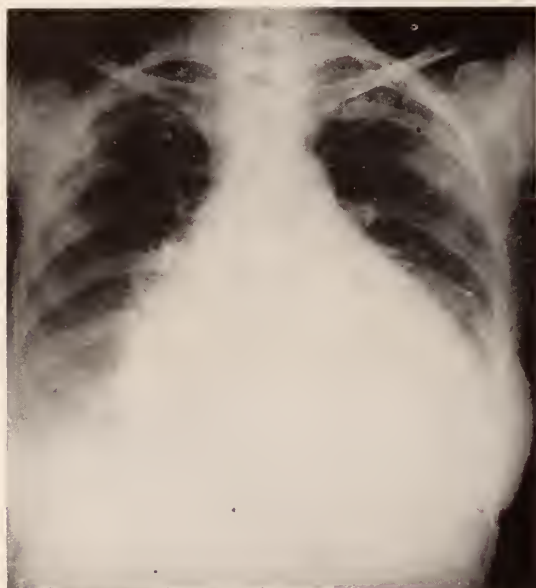


Fig. 18. Pericardial Effusion. Symmetrical enlargement, obliterating normal land-marks. Pulsations were barely perceptible under the fluoroscope.

### Calcification of Pericardium

This process may be part of a general serositis or may be localized to a variable portion of the pericardium (Fig. 19). Unless there is an associated valve lesion or hypertension, there is no change in the contour of the heart. The area of calcification is readily seen under the fluoroscope and examination in the several oblique positions will readily suffice to differentiate it from other intrathoracic conditions. An important feature is the diminished amplitude of cardiac contractions. Films slightly overexposed, or, preferably, taken with a Potter-Bucky diaphragm, are best suited to demonstrate the location and extent of calcification. Not infrequently, the pericardium is adherent to other thoracic viscera or to the anterior chest wall. This also diminishes



Fig. 19. Calcified Pericardium. These cases show a marked decrease in the amplitude of pulsations.

the amplitude of contractions and often produces the so-called "paradoxical movement" of the heart: a shift of the entire organ during deep inspiration toward the side of adhesions.

### Coronary Thrombosis

Coronary disease is usually insidious in its onset. The changes, which are frequently associated with similar processes in the aorta and other arterial systems, consist, at first, of a thickening of the internal coat by endarteritis. Subsequently, the middle and external coats become involved. The pathological changes may attack all of the coronary vessels, or they may be localized to only one portion of a single artery. The anterior descending branch is the one most frequently and extensively involved (Fig. 20).

With the formation of a thrombus on the internal coat, the blood-supply to the portion of the heart supplied by the diseased vessel becomes seriously impaired. The myocardium in this area becomes, at first, oedematous. Soon, the muscle fibers degenerate and there is a localized area of anemia. In time, an anemic infarct is produced (Fig. 21). If the infarct should become absorbed, the myocardium is left thin and bulging, predisposing to the formation of cardiac aneurysm (Fig. 22).

Roentgen manifestations of coronary disease are gross, visual evidence of its pathologic

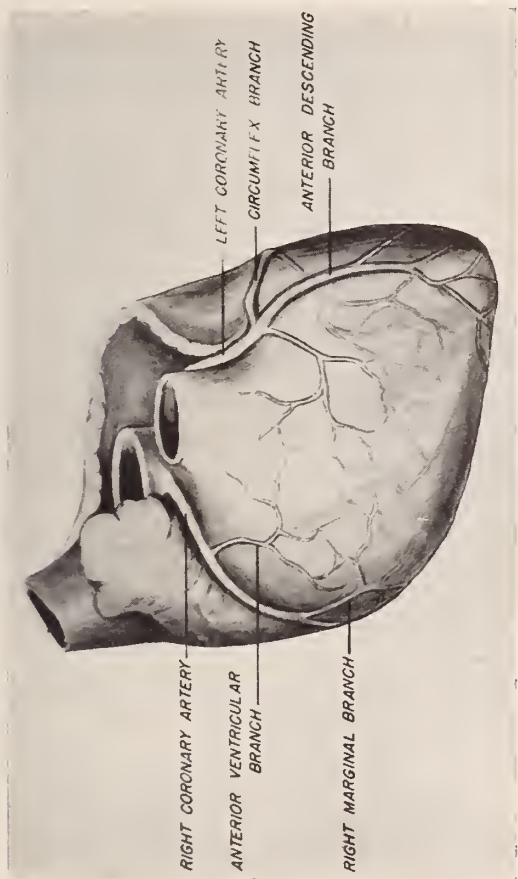


Fig. 20. The Coronary Arteries (after Cunningham). The anterior descending branch is the one most commonly involved.

physiology<sup>8, 9</sup>.

The contour of the left border of the heart is formed by the wall of the left ventricle, and its convexity is due to two factors: first, the actual amount of muscle present; second, the tone of that muscle — the greater the tone, the shorter and thicker the muscle fibers. Due to a loss of tone and destruction of muscle fibers, there is a loss of convexity of the left heart border (Fig. 23). The right and left median diameters lie almost in the same plane, close to the diaphragm, and the heart appears to sag. Under the fluoroscope, one observes a marked diminution in the amplitude of ventricular contractions. These may be weaker even than those of the auricles.

Coronary disease is not necessarily associated with an increase in the size of the heart. The acute case of thrombosis, however, will show an increase in transverse diameter, because of myocardial relaxation resulting from the suddenness of the onslaught (Fig. 24). If a case under ob-



Fig. 21. Infarct of Left Ventricle (sectioned). The infarct is the dark area indicated by arrows. Note flattening of left ventricle in this region.

servation shows an increase in transverse diameter which was not present at a previous examination, this finding may be regarded as an important indication of impending failure. When a collateral circulation is developed, the heart, in time, may show an almost normal type of pulsation under the fluoroscope.

Coronary thrombosis not infrequently follows hypertension (see Fig. 10). In the latter, it will be recalled, there is a variable hypertrophy of the left ventricle. In the presence of infarction these hearts do not show a marked sagging of the left border. Instead, there is a localized area of flattening (Fig. 25).

Roentgen examination of the heart is frequently of material assistance in the study of angina pectoris. It is often possible to determine the cause of these attacks by noting typical alterations of cardiac contour associated with characteristic pulsations under the fluoroscope distinctive of a specific cardiopathy. Thus, some of the common causes of angina, in the form of thyrotoxicosis, aortic disease or anaemias, each having a more or less characteristic roentgeno-





Fig. 22. Aneurysm of Ventricle following coronary thrombosis.



Fig. 24. Acute Coronary Thrombosis. The loss of convexity of the left border is associated with an increase in the transverse diameter of the heart.

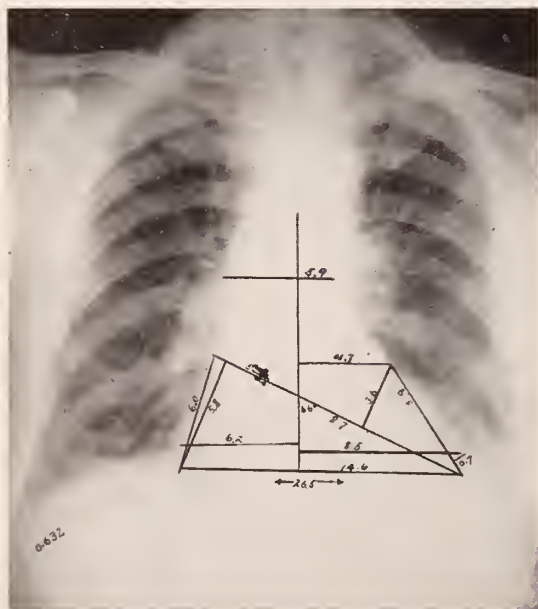


Fig. 23. Coronary Thrombosis. Note loss of convexity of left border. The right and left median diameters lie close to the diaphragm and the heart appears to sag. The amplitude of ventricular contractions is markedly diminished.

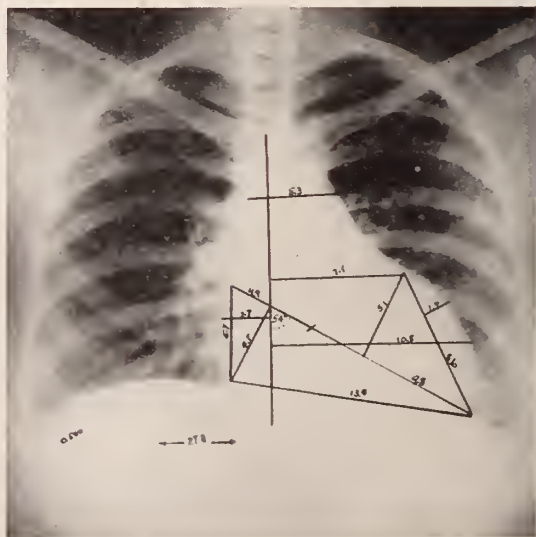


Fig. 25. Coronary Infarction Following Hypertension. Note abrupt flattening of hypertrophied left ventricle.

### Summary and Conclusions

Thorough roentgenologic study of the heart is a useful adjunct in the diagnosis of heart disease. This study consists of careful fluoroscopic exami-



nation as well as measurement of the teleroentgenogram. By this means it is possible to derive useful information pertaining to the size and shape of the heart, the presence and identification of valvular disease and the presence of the more common arrhythmias. Typical changes are observed in valvular lesions, metabolic diseases, lues, arterio-sclerosis, hypertension and coronary disease.

Roentgenologic examination is frequently of assistance in differentiating organic from functional murmurs. It is perhaps, the most useful means of recording the progress of a cardiac case under treatment.

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#### OBSTETRICS AND GYNECOLOGY BOARD EXAMS

The next examination (written and review of case histories) by the American Board of Obstetrics and Gynecology, for Group B candidates who have filed applications will be held in various cities of the United States and Canada, on Saturday, February 5, 1938.

The general oral, clinical and pathological examinations for all candidates (Group A and B) will be conducted by the entire Board, meeting in San Francisco, California, on June 13 and 14, 1938, immediately prior to the meeting of the American Medical Association.

Applications for admission to the June, 1938, Group A examinations must be on an official application form and filed in the secretary's office before April 1, 1938.

For further information and application blanks address Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh (6), Pa.

#### RULES GOVERNING THE AWARD of "THE FOUNDATION PRIZE" of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons

(1) "The award which shall be known as 'The Foundation Prize' shall consist of \$500.00."

(2) "Eligible contestants shall include only (a) interns, residents, or graduate students in Obstetrics, Gynecology or Abdominal Surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching Obstetrics, Gynecology or Abdominal surgery."

(3) "Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant."

(4) "Manuscripts must be limited to 5000 words, and must be typewritten in double-spacing on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are required for a clear exposition of the thesis."

(5) "The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the Journal of the Author's choice. Unsuccessful contributions will be returned promptly to their authors."

(6) "All manuscripts entered in a given year must be in the hands of the Secretary before June 1st."

(7) "The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation."

(8) "The President of the Association shall annually appoint a Committee on Award, which, under its own regulations shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting."

JAS. R. BLOSS, M.D.  
Secretary,  
418 Eleventh Street,  
Huntington, W. Va.



#### ATTEMPTED SUICIDE WITH INSULIN

A case of attempted suicide with insulin is reported in the Journal of the Michigan State Medical Society, December, 1937, by Donald and Foster. Following an alcoholic spree this patient presumably had taken 10cc. of insulin U 20 in large divided doses hypodermically. He was not a diabetic. According to the authors this is the fourth case on record of attempted self-destruction by this means.

# The Clinical Diagnosis of Early Syphilis

JOSEPH EARLE MOORE, M.D., Baltimore, Maryland

The title of this paper is a misnomer. For both general practitioner and expert syphilologist alike, the clinical diagnosis of early syphilis is unreliable. The recognition of both primary and secondary syphilis, in either male or female, and either genital or extragenital, is a laboratory, not a clinical, procedure. It is trite to reemphasize the old cliché—"syphilis is the great imitator"—but in this connection it needs constant reemphasis. There are at least thirteen common diseases with which primary syphilis, and some forty common diseases involving the skin, mucous membranes and their appendages, with which secondary syphilis may be confused.

The diagnosis of early syphilis will be served best if every medical student and every physician will memorize the five diagnostic maxims for primary syphilis.

**1. Any genital sore in male or female is possibly syphilis until proved to be otherwise.**

**2. Any indolent lesion anywhere on the body (especially lips, tonsils, fingers) which fails to heal in two weeks may be primary syphilis.**

**3. The diagnosis of primary syphilis is a laboratory, not a clinical, procedure.**

**4. Do not treat suspected primary syphilis locally until repeated darkfields are negative.**

**5. Do not give antisyphilitic treatment on suspicion; prove the diagnosis first.**

The early diagnosis of primary syphilis depends on the proper use of the darkfield microscope. Since few physicians possess this apparatus and fewer still are trained in its use, every patient with a genital sore and every patient presenting an indolent lesion anywhere on the body should at once be referred to a competent private or public health laboratory with the proper equipment. During the first two weeks of the existence of the chancre, the darkfield exami-

nation, provided the lesion has not been treated locally, is ninety-nine to one hundred per cent efficient. At this same time the blood serologic test is usually negative. The importance of the early diagnosis of seronegative primary syphilis lies in the fact that at this stage of the infection nearly one hundred per cent of cooperative patients are "curable", whereas a delay of even a few days in arriving at the diagnosis until the blood test has become positive diminishes the chance of "cure" by about twenty per cent.

In secondary syphilis the majority of patients develop lesions falling within five clinical domains:— the skin, the mucous membranes, the hair, the eyes, and the bones and joints. These lesions are so often clinically indistinguishable from other much less serious diseases that the physician's only safeguard is, first, to suspect syphilis in the presence of any of them, and, second, to check the suspicion by means of a blood serologic test. The diagnostic maxims of secondary syphilis are also worth memorizing.

**1. Do blood Wasserman follow up — 3 months — on any lesion possibly primary syphilis.**

**2. For any generalized skin eruption — do a blood Wasserman.**

**3. For any sore mouth or throat which does not heal in 10 days, do a blood Wasserman.**

**4. For any unexplained patchy loss of hair, do a blood Wasserman.**

**5. For any iritis, do a blood Wasserman.**

**6. For any polyarticular arthralgia — "acute, subacute, or chronic infectious arthritis"— do a blood Wasserman.**

The control of early syphilis depends not only on clinical diagnosis, but also on deliberate case-finding of those patients with lesions so trivial or so insignificant (a considerable group) that they do not consult a physician. Such individuals must be sought out. They may best be found by



the examination of contacts of patients with known early syphilis.

**Ask each patient:**

1. **From whom did you get syphilis?**
2. **To whom may you have given syphilis?**

**Get the contacts:**

In this disease every physician must be his own public health officer. His duty to the community is not complete with the diagnosis of early syphi-

lis in a given patient until he has attempted to trace the source of infection and its ramifications.

**Summary**

1. The diagnosis of early syphilis is a laboratory and not a clinical procedure, involving both for primary and secondary syphilis the use of the darkfield microscope and of blood serologic tests.
2. Case-finding in early syphilis by means of examination of the contacts is as important as the correct diagnosis of the original patient.



# The Treatment of Early Syphilis\*

JOSEPH E. MOORE, M.D., Baltimore, Maryland

The prevalence of syphilis is indicated by the fact that in Baltimore there are twice as many cases of syphilis as of tuberculosis. The disease is obviously inadequately treated, and since the death rate of untreated cases is 25%, the seriousness of the situation is apparent. Various factors are responsible for failure to treat the early cases.

1. **Hidden course of the disease.** Frequently the patient is completely unaware of early symptoms. Of course, no accurate figures can be obtained on the importance of this factor, but it is probably about one in five male infections and one in three female. For this reason routine serological tests and careful follow-up of the contacts of each case of known early syphilis are essential.

2. **A typical course of the disease.** The early symptoms may bring the patient to a specialist such as the dermatologist, gynecologist, or laryngologist, who may fail to elicit the systemic nature of the disease. Primary and secondary syphilis are laboratory, not clinical diagnoses and necessitate the use of darkfield and serological examinations.

3. **Public ignorance and prudery.** Educational measures are now breaking down this handicap.

The essential considerations for adequate treatment are (1) early diagnosis, (2) appreciation of the infectiousness of muco-cutaneous relapse, (3) potent drugs, (4) continuous treatment, (5) prolonged treatment, and (6) life-time follow-up. Sero-negative primary lesions in a co-

operative patient with adequate treatment stand a 100% chance of cure. Muco-cutaneous relapses occur more frequently when inadequate arsenicals have been given and bear no relation to the amount of heavy metal.

Arsphenamine is more effective than equal doses of neoarsphenamine in early syphilis, but this can be overcome by giving larger doses (twice the dose of arsphenamine) and longer courses (ten to twelve injections) of the more convenient neo. Mapharsen has yet been incompletely studied but is apparently superior to neo and, since it is more rapidly excreted, may be given as often as twice a week. Bismuth is definitely superior to mercury.



## CANADA CLEANS UP THE RADIO

The Canadian Broadcasting Corporation has promulgated regulations, already in effect, designed to improve the standard of broadcasting. The Department of National Health must pass on all radio releases mentioning articles marketed under the Proprietary or Patent Medicine Act or the Food and Drugs Act. Recommendations for treatment must be passed on by the same department. Advertising containing false and deceptive statements may not be broadcasted. The regulations would seem to the citizen of the United States, who is harassed by all manner of blatant propaganda, to be a step forward and one well worth imitating, even though it treads on the toes of the advocates of free speech.

\*Abstract of Paper presented before 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.



# An Analysis of Data Pertaining to Cases of Syphilis and Gonorrhea Reported in Connecticut During 1936

by The Sub-Committees on Venereal Disease Control  
of The Connecticut State Medical Society

The Connecticut County Medical Associations have appointed Venereal Disease Control Committees which function as Sub-Committees of the Public Health Committee of the State Medical Society. A joint meeting of the Sub-Committees was held in New Haven on July 1, 1937, and a constructive program was outlined. The following statistical analysis is presented as a part of that program. These data were obtained from physicians' report cards, and have been analyzed in a number of ways. It should be instructive to physicians and health officers alike.

The report rate of cases of syphilis and gonorrhea per 100,000 is compared in the eight counties of the state in Table 1, which includes 2,333 cases of syphilis and 1,506 cases of gonorrhea. It will be noted that the report rate is usually highest in the more thickly populated areas of the state. This does not necessarily mean that the incidence of syphilis and gonorrhea is higher in these counties, but rather that more control work is being done in the larger towns, which have the advantage of full time health service.

Table 1. Report Rates by Counties — per 100,000

County	Population	Syphilis		Gonorrhea	
		Cases	Rate	Cases	Rate
Hartford . . .	481,818	836	173.51	561	116.43
New London . . .	129,116	196	151.80	79	61.19
New Haven . . .	497,718	642	128.99	451	90.62
Fairfield . . .	433,429	536	123.67	299	68.98
Middlesex . . .	54,099	37	68.39	46	85.03
Windham . . .	54,086	33	61.01	17	31.43
Litchfield . . .	87,007	47	54.02	45	51.72
Tolland . . .	29,674	6	20.22	8	26.96
Total . . .	1,766,947	2,333	132.04	1,506	85.23

In Table #2 these data have been compared by population groups. It will be noted that towns with a population under 5,000 have the lowest report rate for both diseases, and towns with a population over 50,000 have the highest report rate. This substantiates the figures presented in Table #1, and is probably due to better reporting by physicians in the larger towns.

TABLE 2. Report Rates by Population Groups—per 100,000

Towns	Population	Syphilis		Gonorrhea	
		Cases	Rate	Cases	Rate
Under 5,000 . . .	199,527	98	49.12	65	32.58
5,000-10,000 . . .	167,913	118	70.27	65	38.71
10,000-25,000 . . .	252,734	150	59.35	90	35.61
25,000-50,000 . . .	399,914	420	105.02	255	65.76
Over 50,000 . . .	746,859	1,547	207.13	1,031	138.04
Total . . .	1,766,947	2,333	132.04	1,506	85.23

The report rate for towns in Connecticut of over 50,000 population is compared in Table #3. These data are interesting because they show how widely the rate varies in towns of comparable size where undoubtedly the incidence of infection is about the same. The rates may be used as a rough index to the efficiency of the community program for the control of venereal diseases.

TABLE 3. Report Rates—Towns over 50,000 Population—per 100,000

<i>Towns</i>	<i>Population</i>	<i>Syphilis</i>		<i>Gonorrhea</i>	
		<i>Cases</i>	<i>Rate</i>	<i>Cases</i>	<i>Rate</i>
Hartford . . .	182,877	622	340.12	394	215.45
New Haven . . .	165,484	378	228.42	248	149.86
Stamford . . .	68,575	97	141.45	81	118.12
Waterbury . . .	105,700	111	105.01	99	93.66
New Britain . . .	75,085	72	95.89	56	74.58
Bridgeport . . .	149,138	267	179.02	153	22.87
Total	746,859	1,547	207.13	1,031	138.04

In Table #4 a comparison of case rates is made of towns between 25,000 and 50,000 population. Only three of the towns have full time health service. The report rate for syphilis ranges from 3.63 to 390.29 per 100,000, and the report rate for gonorrhea ranges from 14.5 to 141.36 per 100,000. These figures are an index to the efficiency of reporting of cases, but not to the incidence of the disease.

TABLE 4. Report Rates—Towns 25,000-50,000 Population—per 100,000

<i>Towns</i>	<i>Population</i>	<i>Syphilis</i>		<i>Gonorrhea</i>	
		<i>Cases</i>	<i>Rate</i>	<i>Cases</i>	<i>Rate</i>
New London . . .	32,540	127	390.29	45	141.36
Middletown . . .	25,928	25	150.42	39	96.42
Norwalk . . .	41,717	53	127.05	14	33.56
Greenwich . . .	40,758	42	103.05	15	36.80
Danbury . . .	30,332	29	95.61	18	59.34
Norwich . . .	34,173	31	90.71	13	38.04
West Haven . . .	26,352	22	83.49	11	41.74
Bristol . . .	33,990	24	70.61	34	100.02
Meriden . . .	42,137	28	66.45	41	97.30
Torrington . . .	28,038	18	64.20	9	32.10
West Hartford . . .	36,372	20	54.99	11	30.24
Hamden . . .	27,577	1	3.63	4	14.50
Total . . .	399,914	420	105.02	255	63.76

The report rate for towns between 10,000 and 25,000 population is compared in Table #5. Here again there is a wide variety in the number of cases reported from towns of comparative size. It will be noted that the report rate for syphilis ranges from 0 to 162.45 per 100,000, and the report rate for gonorrhea ranges from 0 to 109.64 per 100,000.

In Table #6 the number of cases of syphilis reported for each county by stage of the disease is given. Table #7 gives a comparison of cases and their percentage to the total reported by county for primary, and secondary cases in the communicable stage. The predominance of tertiary cases is noted, of which there are 989 as compared with 111 of primary and 219 of secondary syphilis. It is also interesting to note that there were 185 cases of congenital syphilis. Physicians failed to report the stage of the disease in 821 instances. This is a very important item because it gives the health officials definite information as to whether or not the case is a public health menace. It is very important to discover syphilis in the primary and secondary stages, because at this time more can be done for the individual as well as the protection of the public.

TABLE 5. Report Rates—Towns 10,000-25,000 Population—per 100,000

Towns	Population	Syphilis		Gonorrhea	
		Cases	Rate	Cases	Rate
Derby . . . . .	11,088	18	162.45	10	90.25
Groton . . . . .	11,857	19	160.24	13	109.64
Ansonia . . . . .	21,693	31	142.90	4	18.43
Windham . . . . .	13,477	17	126.14	10	74.20
East Haven . . . . .	10,953	11	100.43	7	63.91
Windsor . . . . .	10,176	10	98.27	4	39.31
Manchester . . . . .	24,725	16	64.71	19	76.84
East Hartford . . . . .	21,318	8	37.53	9	42.22
Shelton . . . . .	10,562	3	28.40	2	18.94
Milford . . . . .	14,500	4	27.59	0	0.00
Stonington . . . . .	11,583	3	25.90	1	8.63
Enfield . . . . .	14,915	3	20.11	2	13.41
Fairfield . . . . .	21,278	4	18.80	1	4.70
Stratford . . . . .	24,062	2	8.31	1	4.16
Naugatuck . . . . .	14,415	1	6.94	4	27.75
Wallingford . . . . .	16,132	0	0.00	3	18.59
Total . . . . .	252,734	150	59.35	90	35.61

TABLE 6. Cases of Syphilis Reported by Stage of Disease

County	P	S	T	C	C. N. S.	N. S.	Total
Hartford . . . . .	39	117	410	52	7	211	836
New London . . . . .	21	24	81	12	0	58	196
New Haven . . . . .	35	35	328	63	1	180	642
Fairfield . . . . .	10	26	114	46	0	340	536
Middlesex . . . . .	0	1	17	2	0	17	37
Windham . . . . .	0	8	10	7	0	8	33
Litchfield . . . . .	5	7	25	3	0	7	47
Tolland . . . . .	1	1	4	0	0	0	6
Total . . . . .	111	219	989	185	8	821	2,333

P-Primary. S-Secondary. T-Tertiary. C-Congenital. CNS-Central Nervous System. NS-Not Stated.

TABLE 7. Reported Cases of Infectious Syphilis—per cent of Total (See Table 2)

County	Primary		Secondary		Total Infectious	
	Cases	Per cent	Cases	Per cent	Cases	Per cent
Hartford . . . . .	39	4.66	117	14.00	156	18.66
New London . . . . .	21	10.72	24	12.24	45	22.96
New Haven . . . . .	35	5.45	35	5.45	70	10.90
Fairfield . . . . .	10	1.87	26	4.85	36	6.72
Middlesex . . . . .	0	0	1	2.70	1	2.70
Windham . . . . .	0	0	8	24.24	8	24.24
Litchfield . . . . .	5	10.64	7	14.89	12	25.53
Tolland . . . . .	1	16.67	1	16.67	2	33.33
Total . . . . .	111	4.76	219	9.39	330	14.14

In Table #8 other important information supplied by physicians is compared by counties. The patient should be fully instructed as to the nature of his disease. Yet, these figures indicate that in Connecticut in 1936 only 36.95 per cent were instructed, 4.11 per cent were not instructed, and no data were given concerning 58.94 per cent of the cases. Pamphlets were given to 2.74 per cent of the patients; they were not given to 1.2 per cent, and there were no data concerning 96.06 per cent. From the standpoint of syphilis control the source of infection is of fundamental importance. Yet, for the entire state, physicians gave the source of infection in only 4.84 per cent of the cases.



TABLE 8. Other Required Information—per cent of Total

County	Patient Instructed			Pamphlet Given			Source Given	
	Yes	No	No Data	Yes	No	No Data	Yes	No
Hartford	23.09	2.51	74.40	1.79	.24	97.97	5.38	94.62
New London	63.27	11.22	25.51	2.55	1.53	95.92	8.67	91.33
New Haven	45.64	3.12	51.24	3.89	3.43	92.68	3.58	96.42
Fairfield	30.78	4.48	64.74	1.68	0.00	98.32	3.17	96.83
Middlesex	70.27	10.81	18.92	2.70	0.00	97.30	2.70	97.30
Windham	66.67	6.06	27.27	18.18	0.00	81.82	18.18	81.82
Litchfield	74.47	6.38	19.15	6.38	2.13	91.49	8.51	91.49
Tolland	66.66	0.00	33.34	0.00	0.00	100.00	0.00	100.00
Total	36.95	4.11	58.94	2.74	1.20	96.06	4.84	95.16

The control of syphilis and gonorrhea requires the cooperation of all persons and agencies. The practicing physicians are the most important group. The control program cannot be effective without complete understanding and coordination of efforts between physicians and health officials. This analysis should be instructive for the following reasons:

1. This study indicates to physicians and health officials where constructive work is needed.

2. It suggests to physicians how they may cooperate more effectively with other agencies.

3. It shows that a constructive use is made of data supplied by physicians on the report cards.

4. The results of the analysis indicate roughly how much venereal disease control work is being done in various sections of the state. A similar study each year will serve as an index to the progress being made in the control of these diseases.

The Public Health Committee and the Sub-Committees on Venereal Disease Control of the State Medical Society wish to thank the physicians of the state for their cooperation with the One-day Survey which was recently made on the prevalence of syphilis and gonorrhea in Connecticut. The results are being tabulated, and will appear in an early issue of the Journal of the Connecticut State Medical Society.



## DATA ON THE MENOPAUSE

Kate C. H. Mead, M.D.

Haddam, Conn.

That medical women are ready and willing, as well as capable of carrying out worth while investigations, either literary or scientific, is shown by an article published in the London Lancet, January, 1933, on an investigation by medical women concerning the menopause in more than one thousand women. This investigation was made by the British Medical Women's Federation at the request of the British Medical Association. The statistics include data from women after their menopause from the ages of twenty-nine to ninety-one years, from all classes of society, few of them being at the time patients of the investigators. The statistics were compiled by a public statistician from the facts collected, and included 835 married and 362 unmarried women.

It was found that 89.7% of these women had carried on their occupations without any inter-

ruptions during the menopause, 15.8% having been free from all symptoms, another 20% free from all except flushings. Child bearing or marriage had no certain relation to any case, nor was there found to be any correlation between the onset of menstruation and the date of the menopause. Previous health or sickness seemed to have made no difference in the character of either. Following the menopause a certain amount of nervous irritability was possibly more marked in those who were unmarried, and obesity more common in the married, but on the whole it was shown that the so-called "change of life" had very little effect upon the health of 89.7% of these 1197 women. The members of the British Medical Association were unanimous in their appreciation of this careful research by medical women, the results of which should be known in America as well as in Great Britain as a standard for comparison and further investigations, but it seems to have been forgotten by recent collectors of statistics and makers of graphs.

# The Relation of Nasal Surgery to Allergy<sup>\*</sup>

JOSEPH D. KELLY, M.D., New York City

The clinical manifestations of hypersensitivity are numerous, just how numerous it is difficult to state. As our knowledge and enthusiasm increase, we begin to add more diseases to the group and to regard more of them as being due to allergy. However, asthma and hay fever are the outstanding examples. It is generally understood and believed that there must be present certain characteristics in the condition before it can be termed an allergic manifestation. First, that the disease must present itself when the individual comes in contact with some particular substance to which he is hypersensitive; second, that the symptoms must disappear when this substance is either eliminated or the patient is no longer in contact with it; third, that it must be due to a spasm of the smooth muscle, or to a stimulation of glands and an increased permeability of the capillaries. Hay fever and asthma fulfill these requirements very definitely, whereas vasomotor rhinitis, angioneurotic edema and migraine do not fulfill these characteristics, but, nevertheless, are fully accepted as being due to a hypersensitivity toward particular protein elements which may be termed antigens or allergens.

Within the past decade or two, the relationship of allergy to rhinology has assumed a very important place. No longer do we regard evidences of hypersensitivity expressed by vasomotor rhinitis, hay fever, and asthma, as being entirely in the province of the internist, but we feel that in order to treat these cases intelligently it is necessary for the rhinologist to co-operate and to have a thorough understanding of what these local manifestations represent.

Allergy, which is the best term that we have to express these phenomena, is, nevertheless, not a sufficiently broad term to be used in a general sense, to cover all of the idiosyncrasies expressed by the human individual in his reactivity to the many substances, both extrinsic and intrinsic, by which we know the phenomenon of hypersensitivity is completed. We know that there are

many factors which have a definite bearing on the etiology of allergy, which are not directly a source of antigen, but which are necessary in order to bring about the phenomenon of hypersensitivity. Some men are of the opinion that it is absolutely necessary that an intestinal or other toxemia exist before allergy can be expressed and that an important part is played by heredity, together with certain endocrine imbalances, whether they be due to a deficiency of secretion or the results of an exhaustion neurosis. Hypersensitivity may be expressed as an excess of fixed antibodies in the tissues without the protection of circulating antibodies.

The clinical manifestations of this disease which come within the province of the rhinologist, both to see and treat, may be divided into two types: the first, that effecting the nose and throat and easy of diagnosis, such as, vasomotor rhinitis, hay fever, angio-neurotic edema and asthma; the second, the subjective or type difficult of diagnosis is exemplified by migraine.

In hay fever we are dealing with a condition which is definitely due to an extrinsic substance, of a protein nature and of a seasonal type, known as pollen, which, when inhaled, causes a vasomotor disturbance of the nasal mucous membranes. This disturbance may cause a complete obstruction of the nares and give rise to systemic conditions such as malaise, fever, restlessness, sleeplessness, etc.

The diagnosis of hay fever usually is readily made from the history of the patient, unless it is the patient's first evidence that he is or has become sensitive to pollens. The treatment of this condition then is a matter of desensitizing the individual to the particular pollen to which he is hypersensitive. This is accomplished by means of our skin tests and injections made with a saline-glycerine extract of the various pollens of plants which pollenate during the particular season of the year in which the individual suffers from his symptoms. The

<sup>\*</sup>Read before the Eye, Ear, Nose and Throat Section, Connecticut State Medical Society, Westport, September, 1937.



result of the treatment of this disease is both satisfying and gratifying, for it is definitely proven that under proper supervision and treatment over 50% of the patients treated are markedly relieved of their symptoms, fully 35% to 40% are moderately relieved, and from 8% to 10% may be considered cured, or so reasonably cured that they may go from two to eight years without requiring another series of treatments.

It has been found that the incidence of sinus disease in patients suffering with hay fever is less than that of individuals who do not show any hypersensitivity, so that one would be led to believe that sinus disease or nasal obstruction have no bearing whatsoever on the etiology, progress, or cure of this condition. However, rhinologists have found that in some cases of hay fever, where nasal obstruction was present, and where the nature and degree of this obstruction was such that it warranted an operation per se, the operation having been performed, there has been a marked improvement, and in some cases a cure of hay fever. The *modus operandi* by which these surgical procedures have affected the reactivity of the patients is something which we cannot fully explain. Nevertheless, there may be some association between the operative procedure and its effect upon the nervous and vascular systems of the nose which may be analogous to the results sometimes obtained with ionization.

In some cases of ionization, we know that there is an alteration of the nervous and vascular supply of the mucous membranes of the septum, ethmoids, and inferior turbinates, to the degree that there is a destruction of the smaller capillaries and vasomotor nerves and mucous glands. Such membranes are undoubtedly unable to react to, or are no longer sensitive to protein irritation.

### Vasomotor Rhinitis

Vasomotor rhinitis may be termed another form of hay fever, inasmuch as the symptoms are practically the same. Eosinophilia may be present in hay fever as well as in a vasomotor rhinitis; the character of the membrane may be exactly the same. The only differentiating facts are that vasomotor rhinitis is a perennial disease and something in the clinical history of the patient may offer a clue to the allergens responsible for the reactivity in some cases. These

allergens may be inhaled or they may be ingested in the form of food. There also may be a biochemical imbalance brought about by an absence of sodium or potassium salts. This imbalance seems to play an important part in predisposing the individual to hypersensitivity. So definitely has this condition been established that at the present time there is considerable investigation going on and rhinologists are beginning to recognize the acid and alkaline individuals by the color of their nasal mucous membranes. The pale, swollen, boggy membranes of the nose are interpreted as indicating a condition of the body fluids which might be termed an alkalosis, whereas, the red, dry, glistening membranes are indicative of an acidosis. In the first, the sodium and chloride elements are deficient and the body may be in need of sodium chloride or of dilute hydrochloric acid. If the membranes are red, potassium, calcium and the iodides are deficient.

While therapy along these lines is undoubtedly of great help in the treatment of these cases, we cannot hope to assist patients entirely in the relief of their symptoms unless we pursue our investigations sufficiently to determine the cause of the local manifestations. As you all know, patients are very often helped by such simple precautions as the removal of animal or vegetable contacts, or the elimination of certain articles of food from the diet.

In speaking of the surgical treatment of vasomotor rhinitis, we have felt that, while there is much to be said and substantiated in the chemical and immunological fields, there is room also for thought and action on the part of the rhinologist. You have all had the experience of having sent to you for examination and an opinion, patients suffering from vasomotor rhinitis. These patients may be suffering from an acute, sub-acute, or chronic type. We are not greatly embarrassed by the first two types because usually we have enough knowledge to help these patients by supportive treatment, or we refer them to the allergist for diagnosis. We can irrigate both antra with the hope that the case may be one of the latent antral type which responds to such a procedure. If there is not much hyperplasia or hypertrophy or mechanical obstruction, we do nothing more. But when the patient who has been suffering from vasomotor rhinitis for a period of three or four years comes to your office for treatment and relief, what do you do? He



has been to the allergist and is disgusted. Someone has told him that you are good and he should go to see you. This patient has a chronic vasomotor rhinitis with hyperplasia and hypertrophy of all the mucous membranes of his nose. It is impossible to see beyond the anterior tips of the inferior turbinates. The nasal speculum reveals two large dilated masses of mucous membrane. Do you know where to begin, what to say, and how much to promise these poor patients? I do not, but something has to be done to relieve them of their symptoms, and my thought and action has been as follows:

Is this ischemia and edema of the mucous membrane entirely due to a chemical imbalance or allergic reaction? Is it not possible that some part is due to paralysis of the vasomotor fibers caused by pressure and edema in the sphenopalatine area? The vaso-dilator fibers predominate and a vicious circle of pressure paralysis is established. This condition combined with the formation of sinus vacuum and congestion completes the picture so that some of these mucous membranes do not respond to the strongest astringents. If we do succeed in shrinking them, we find large, boggy inferior turbinates with large posterior masses of hyperlastic tissue and the mucous membrane over the septum two or three times its normal thickness.

I tell these patients that it is impossible for me to do anything for them until I have operated and to some degree established normal circulation and function to the mucous membranes. I feel that the allergists with whom I have worked agree with the procedure since I continue to receive cases from them occasionally. However, I endeavor to have the allergist continue his observation and treatment. The amount of surgery done varies with the case and the operator, but I do believe that half-way measures in these cases are worse than no surgery at all.

### Asthma

There is no need for me to attempt to describe to you any of the symptoms or the cause of asthma, for, as the underlying cause of asthma is allergy and as the cause of allergy is not known, it leaves us with a combination of symptoms affecting the tracheo-bronchial tree and characterized by dyspnea which we call asthma for want of a better term. The history of asthma dates from time immemorial. This disease was

first described in 1868 when an Englishman by the name of Salter attempted a classification of this disease into an intrinsic and an extrinsic type. The intrinsic type was designated as that asthma caused by the reactivity of the somatic cells to a toxin arising within the body; the extrinsic asthma was said to be due to a reflex irritation of the sympathetic nervous system caused by some toxin or antigen arising outside the body.

It has been found by a number of investigators that nearly all patients suffering from asthma show some disease of the sinuses. In fact, some men report that as high as 74% of the asthmatic patients presenting themselves for an examination have sufficient involvement of their sinuses, so that on ordinary clinical examination they were able to classify them as suffering from some form of sinusitis. The association of sinusitis and asthma seems to fall into the same category as the triad of tonsillitis, rheumatism, and myocarditis. Those of us who have had much experience in treating asthma know of the relief given patients by the cocanization of the nasal mucosa in the region of the sphenopalatine ganglion.

This direct association has brought the rhinologist into the treatment of asthma from a surgical standpoint and while the immunologists may have accomplished great things in the treatment of asthma, the rhinologist has been able to help, and in some cases, to cure by the surgical procedure of a pansinus operation. Doctor Weille of Boston, in a series of 40 cases which were selected for treatment by means of sinus surgery, reports that of these 40 patients operated upon, 5 were cured of asthma, 9 were markedly improved, 6 were moderately improved, and 2 were slightly improved. Of 6 patients who had extrinsic asthma, none of them received any benefit from sinus surgery. One of these patients was found to be cured of asthma just so long as he avoided contact with dogs. He further concluded that, according to his observations, 75% of the patients having asthma associated with sinusitis showed a favorable local result in the nose following surgery, but only about 50% of the cases had a long-continued favorable change in their asthma. The extrinsic asthma cases were less likely to be helped than the intrinsic cases. All of the cases operated upon had a sinus disease requiring surgical treatment on its own merits. The operation was done in an attempt to interrupt the vicious cycle of the very

severe cases of asthma by gaining even a temporary relief.

These records of Doctor Weille's are somewhat in accordance with findings in our cases, except that our percentage of cures from 2 to 8 years is larger than he reports. Cases which have been operated on by us are those which have been given up by the immunologist as being beyond his ability to afford further relief. The patients in our series had asthma from 2 to 12 years. Our statistics show about 20% cures, 40% markedly improved, 20% moderately improved, and 20% not helped at all.

Doctor Rackeman, in arriving at his results in the treatment and prognosis of asthma, on a basis of 213 cases which had been relieved of their asthma symptoms over 2 years, states that the more common method of cure is by the elimination of, or escape from, the particular extrinsic substance to which the patient is hypersensitive. In certain cases, especially in children, the removal of this trigger mechanism can result in a permanent cure, but in most of the cases the extent of the cure cannot be determined. Clinical cure, including the absence of symptoms, even in the presence of the supposedly offending substance, can exist in spite of the fact that skin reactions are still positive. Consequently, the thought that positive reactions may represent past history rather than present illness is substantiated. Permanent cures by changing of environment have been noted. The removal of foci of infection very often leads to clinical cure, but Rackeman states that the evidence at hand fails to suggest any definite explanation of the asthma, except that the basis is immunological rather than physiological or anatomical.

Referring to the operative procedures that we have used in the treatment of our asthma cases, it is necessary to establish the fact that we do not operate on any case of asthma until that case has been thoroughly gone over from the standpoint of the immunologist and until it is fairly well established that our known methods of treatment in this field can do nothing more to help the patient. Only then do we feel that we are warranted in starting with our most radical operative treatment.

The amount of operating done varies with the history, and the clinical and X-ray findings. Given a case of asthma which shows on clinical examination a definite hyperplastic ethmoiditis

without any secondary infection, with X-ray plates which give evidence more of an osteoporosis than of areas of osteosclerosis, in our opinion such a case would do very well with a double intranasal ethmoidectomy with an enlargement of the sphenoid osti and a double intranasal antrum operation. The extreme hyperplastic case with considerable polypoid degeneration and suppuration with definite areas of sclerosis is the type for which we advise the external ethmoid route. Under such conditions, the operative procedure is divided into two parts:

(1) A double external ethmoid operation is done after the method of Lynch and Smith, endeavoring to be as thorough as possible in removing all infected material from the frontals, ethmoid and sphenoid. This first operation is done under a general anesthetic.

(2) The second operation, which may follow in ten days or two weeks after the first operation, is usually done under local anesthesia. At this time a Caldwell-Luc method is used on both antra, being careful to remove all the polypoid membrane from the antrum, taking down the naso-antral wall and making a thorough inspection of the inferior turbinate to determine how much disease is present in this tissue. If it is boggy and polypoid, the whole turbinate is removed at this time. We feel that in the previous cases in which the inferior turbinate was not disturbed, there was often interference with the proper drainage. A month or two after operation, we have found two large polypoid inferior turbinates which interfered with the resolution of the operated area and with the improvement of the patient. Hence, we now feel thoroughly justified in removing these turbinates and we have as yet failed to notice any untoward symptoms in the patient even after a period of five years.

We realize that there has been considerable difference of opinion as to the value of the operative method for cure and improvement of patients suffering with asthma. The literature is full of conflicting opinions; nevertheless, we feel our results have been satisfying enough to both the patients and the operator to continue our work. We are confident that 80% of these patients have been helped and some of them have been cured up to a period of 8 years.

In conclusion, I would say that while there has been a great improvement in the treatment of asthma from the standpoint of immunology,



operative treatment also has taken a step forward in the right direction by offering help to some of these patients when they have been given up by the immunologist.  
140 East 54th St.

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#### WHAT A DOCTOR SHOULD KNOW

"The time has passed when all that a doctor had to know was medicine.

"The most successful doctors, today, are those who know most about psychology — particularly the psychology of women. Because the average

man never goes to see a doctor until he is practically dying, or at least until he is actually in pain. It is poor, weak, 'suffering' women who fill the doctor's pockets and pay for his limousines and golf sticks.

"The young physician who wants to be popular and have Persian rugs on his office floor should know that the most effective modern 'bedside manner' is a bright, cheerful, flattering smile, followed by a look of deep concern and a head shake after taking the pulse beat. Every woman is bent on having high blood pressure now and then.

"He should know, almost without taking her temperature or looking into the whites of her eyes, whether a woman needs a sedative, a stimulant, an operation, or only a little sympathy and personal attention.

"He should know how to listen until a woman has gotten her last symptom out of her system, and how to 'advise her' to go somewhere she's been dying to go — whether it's the Riviera, Honolulu, or just Saratoga Springs during the races.

"He should know at a glance whether she has a genuine attack of cardiac trouble — or only a case of acute hysteria because her husband is having blonde-trouble or her boy friend is slow in coming across with the 'wilt thou' and the solitaire. Some men can keep a girl waiting until she becomes positively jittery!

"He should learn early how to remove a woman's inferiority complex and revive her crushed vanity and how to 'set' her fractured heart so that it will knit quickly and soon be in working condition.

"Above all, he should be aware that a woman must emote now and then or something will snap inside of her! And on such occasions he should know when to soothe her, when to scold her, when to jolly her, when to bully her and when to take her seriously — even though he may long to rush out and slam the door behind him!

"Of course, a little knowledge of medicine is necessary even to a young and good-looking medico — but it is merely incidental. The diagnosis is the big thing! And if a young and struggling doctor wants to see his office packed with 'suffering' women, he should mix at least nine parts psychology with one part materia medica."—*Helen Rowland in Ohio State Jour., Sept., 1937.*



# Report of a Case of So-called von Jaksch's Anemia

CLARENCE G. THOMPSON, M.D., Norwich, Conn.

In 1889 Rudolph von Jaksch described a series of cases named by his contemporaries as von Jaksch's Anemia; pseudo-leukemic anemia of infancy; infantile splenic anemia. These cases were described by him as having definite characteristics such as the deficiency of hemoglobin and erythrocytes with marked anisocytosis and poikilocytosis, numerous erythroblasts, macroblasts with extreme leukocytosis, relatively myelocytosis, splenomegaly with enlargement of the liver and the lymphatic glands. These patients were under three years of age. The onset of the illness was generally insidious with enlargement of the abdomen, listlessness, ready fatigability and weakness, gastrointestinal disturbances with marked fever or irregular fever. The majority of these patients recovered. To quote Wintrobe in Tice looseleaf medicine, "there is now little doubt that the syndrome described by von Jaksch is not a disease entity but represents a symptom complex which may be associated with a large variety of factors among which may be mentioned rickets, malnutrition, gastrointestinal disturbance, syphilis, tuberculosis and a number of infections."

In the Year Book of Pediatrics, 1936<sup>1</sup>, "We find that this is not a clinical entity but merely a symptom complex, a biologic variant of severe infantile anemia which is of special interest because of the splenic enlargement and the erythroblastosis. The etiology has been sought in the functional immaturity of the blood-forming organs." In the November issue Journal of Pediatrics<sup>2</sup> we find the following, discussing the so-called von Jaksch's anemia: "It is a futile argument whether it is primary or secondary, whether it is a disease or a symptom complex or merely an infantile reaction to the factors producing anemia. The blood picture is regarded as the expression of a pathologic entity. The diagnosis of von Jaksch's anemia, simple to make, should challenge the best efforts of the clinicians

to find the underlying disease process." Again we find Blackfan and Diamond<sup>3</sup> of Boston commenting in the Nelson looseleaf medicine: "Von Jaksch's anemia described as pseudo-leukemia is considered not a clinical entity but represents rather a similar response of infantile blood-forming apparatus to numerous conditions including nutritional and infectious disorders of which rickets is an outstanding feature." This anemia of the so-called von Jaksch type may possibly result not so much from the lack of iron but the inability of the body to assimilate the iron taken in. The following case report may show this so-called symptom complex associated with numerous infections.

Theresa D., age 18 months, white, was first seen on June 24, 1937. The reason of the visit was the child's appearance as one severely ill, prostrated with high temperature and exhaustive cough. The writer was first struck by the marked pallor of the infant and her severe prostration. The tentative diagnosis was made of a bronchopneumonia with anemia following three days' upper respiratory infection. She was observed for two days with no improvement and with the added findings that both the spleen and liver were considerably enlarged. Hospitalization was advised and the patient entered the William W. Backus Hospital on June 27, 1937. X-rays taken at the time of her admission disclosed the following: "A film of the chest shows the bony thorax, diaphragm, pleura and heart essentially negative. The hilus shadows are accentuated particularly on the right. These findings may be due to an acute bronchitis or a very early central pneumonia of the right hilus." Blood count taken at that time showed the red cells 3,000,000, hemoglobin 31%, white blood count 13,400 which showed 11% non-segmented with variations in size and shape and a polychromophilia. The spinal fluid was negative. The child continued very sick. On June 29, she was transfused, the

father being the donor. On July 1, another blood count showed the following: hemoglobin 30%, red blood 2,120,000, white blood count 17,800. Urine examination showed albumin 2 plus, sugar negative and microscopically white blood cells showed 1% clumping. This pyelitis was attacked with sulfanilamide which it cleared up in about four days. Another transfusion was given on July 1, and another given on July 3, and another on July 8, 10, 13, 15 and 16. These transfusions brought the blood up to 52% hemoglobin, 3,700,000 red cells with a 12,000 white blood count, a reduction in the non-segmented cells and a gradual disappearance of the abnormal sizes and shapes. On July 9, in consultation with Doctors G. H. Gildersleeve and D. Sussler, an abdominal paracentesis was done to find if possible the organism accountable for the peritonitis. Report showed that the culture was sterile. On July 20, after twenty-four days in the hospital, the baby was discharged very much improved. At that time her blood count was — hemoglobin 70%, red blood cells 3,900,000, white blood cells 10,000. She was followed up at home with the following therapy: diet containing large amounts of iron, heliotherapy, Brewer's yeast and liver extract intramuscularly. The child made very satisfactory improvement under this form of therapy. The last examination made on September 5 showed the child practically normal with a complete disappearance of the enlarged liver and spleen. The only sequella was a pronounced fright when anyone handled the child except the mother. This may be readily excused when one considers her stormy course and the many needles and rigid supervision while in the hospital. The last time I saw the child was on December 1, 1937, when she had a slight coryza which disappeared in two or three days. At that time she appeared in excellent health and was much easier to handle. Calcium gluconate later substituted for the Brewer's yeast probably accounted for her lessened irritability.

#### Comment:

This case appears to the writer as typical of the condition described by von Jaksch. The possibility of the anemia following the infections can be discounted by the fact that the mother specifically told me that the child had the pallor many months before she was taken sick. It is

possible that the anemia deepened with the numerous infections but I do not think that the infections, per se, were primarily responsible for the original anemia. Thus we have a case which ran the gauntlet of a starting anemia followed by a severe attack of bronchitis followed by an attack of pyelitis and later by a sterile peritonitis, all ending in recovery. It seems obvious that the numerous blood transfusions had much to do with the ultimate favorable outcome.

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#### THE MICHIGAN STATE MEDICAL SOCIETY ON MEDICAL INFORMATION IN INSURANCE CASES

The House of Delegates of the Michigan State Medical Society at its Grand Rapids meeting, September 27, 1937, reiterated its stand taken in 1929 relative to special information and reports requested of practitioners of medicine by insurance companies.

The 1929 Resolutions, unchanged at the 1937 session, are as follows:—

##### Resolution No. 1 —

Be it resolved, that physicians charge a fee of not less than \$2.00 to Old Line Insurance Companies for rendering special reports of health and physical condition of prospective applicants for insurance, the fee to be increased according to the degree of service, and

Further, that no report be given to an insurance company without the applicant's full consent.

##### Resolution No. 2 —

Be it resolved, that physicians charge a fee of not less than \$2.00 to Health and Accident Insurance Companies for each preliminary and final claim proof, the fee to be increased according to the type of service rendered, and

Further, that physicians be not required to make affidavits to statements on claim proofs. —*Jour. Mich. State Med. Soc., Dec., 1937.*



# Presidents' Proscenium

## Proposals from the Medical Profession

GEORGE A. TRAYLOR, M.D., Augusta, Georgia  
President, Medical Association of Georgia

State control of health and healing is not new but is probably as old as government. Heroditus records that it was the custom in Babylon for the sick to be brought to the most frequented thoroughfares, and everyone who passed by enquired of the stricken one regarding his or her illness. They then suggested remedial measures which they had found effectual in such cases, or had heard were of value. Thus, in Babylon, illness was not alone the sick person's affair, but it had its social implications. The same historian relates that in Greek communities eminent men were employed to supervise the public health. This was state medicine on a high plane, acquiesced in by those who took the State seriously. The ancient Greeks believed the State could serve them more efficiently through such a plan, but in the end they were betrayed by their governments.

Our Federal government is engaged in state medicine through the United States Public Health Service, the various Veteran Administration facilities and the Children's Bureau of the Department of Labor. Georgia practices state medicine through its Department of Health, the Institution for Feeble-minded Children, the State Insane Asylum and the State Sanatorium for Tuberculosis and some of the counties do likewise when physicians are employed to care for the indigent ill. Some of our municipalities erect hospitals and employ city physicians to give hospital and medical care for those unable to provide it for themselves, which is also state medicine.

The chief difference, it seems to the writer, between present forms of state medicine and the newer proposals is that the former came about as the result of the activities of the medical profes-

sion, while recent plans are formulated by those outside the ranks of medicine.

There are good reasons why a community cannot afford to allow the medically indigent in its midst to suffer because of the lack of medical and hospital care, reasons too well known to wide-awake physicians and sanitarians whose work mean so much in disease prevention. Perhaps the ultra-socially inclined may have seized upon the economic debacle of the last eight years in order to further collectivist schemes, and that our profession has been more vociferous in opposition to these groups than in realizing we are dealing with a practical problem instead of a theoretical one. Of late the profession is awakening, and counter proposals are being suggested. This is a good sign, and is as it should be. Physicians are the only ones capable of suggesting the proper remedial measures. If organized medicine will formulate a plan for caring for the medically indigent which meets the needs it will prevent government meddling, which is abhorrent to almost all physicians who have given the matter serious thought.

Any proposal to provide adequate medical care will fall far short of the mark unless provision is made for hospitalization for those requiring this facility. Nor will it be possible to make blanket suggestions which will be applicable to the country as a whole. A plan that might work admirably in Connecticut would, in all probability, not be suited to the needs of Georgia, and one satisfying the requirements of South Dakota would not meet the situation in Arizona. It is believed that members of each state medical society should study the situation in their respective states, and evolve a plan that will best solve their local problems. In Georgia it is the



rural and small-town dwellers most in need of aid. It is nearly always possible for these people to obtain medical care but when confronted with a large hospital bill which may absorb all their savings, or the earnings of a year's toil, their faith is broken, especially if their health has not been restored. At the present time our Committee on Public Policy and Legislation is trying to persuade the Legislature to allow the people to vote on a constitutional amendment which, if enacted, would allow counties to appropriate funds to erect some necessary hospitals and employ professional personnel to care for their indigent sick. However, this beneficent piece of legislation has been proposed before by our state association but it did not receive approval.

Perhaps Senator Lewis did the medical profession a kindness when he addressed the House of Delegates of the American Medical Association, and when he later introduced Senate Joint Resolution 188. Anyway, it has caused some physicians to ponder the problem, who before never gave the question of regimentation of physicians serious thought. Likewise, the 430 physicians who signed certain propositions have more forcibly brought to our attention the need for concerted and positive action on the part of the profession. No longer can we be content to sit back and employ a familiar political device, the argumentum ad hominem. Attacking the person who submits a proposal does not meet the case in hand, but originating a counter proposal which meets the issue is a better plan. But your plan should be submitted through your county and state medical organizations to become immediately available for adoption and practical use.

With the evolution of society in general, and medicine in particular, has come the realization that the health of the people is of paramount importance, and our profession can no longer ignore the desire of the public to enjoy medical culture to the fullest. Indeed, we should be proud that our profession has been elevated to such a position that the public is interested, for their understanding of our problems will aid us to attain even greater heights of usefulness. It is our duty to prove ourselves worthy the heritage bequeathed us, and we can do it in no better way than to acknowledge our responsibility, and demonstrate our ability to propose ways and means for rendering medical and hospi-

tal care for those unable to provide it for themselves.

Whatever plans are proposed, funds appropriated and the control of the service rendered should remain local in so far as this is possible. In some cases state aid, and in others Federal assistance may be required, the latter in emergencies.

It is believed that when emotional thinking and expression and excitement have subsided, practical, workable plans can be formulated which will meet the needs of the various sections of our country; that "socialized medicine" can be obviated and an arrangement can be found whereby physicians can remain in control of whatever agencies are devised to meet the need of adequate medical and hospital care. It is the duty of every member of the medical profession to give serious consideration to this question, one which so vitally concerns his future as well as his clientele. Every physician should take more interest in his county, district, state and national medical organizations, and attempt to enroll every eligible physician in his county medical society.

Dorothy Thompson has written: "We need to cultivate among ourselves wisdom, co-operation, realism and courage — we will need them all." This is particularly applicable to the medical fraternity. Let us say to the people, "You do not need to draft us, we have already volunteered", and are capable of both planning and execution.

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There has never been a time in the history of medicine when the people, as well as physicians, were in greater need of spiritual guidance to lead them through the maize of problems that confront our social organization. The evils of quakers, the malignancy of poverty, with the rapid increase in population of the unfit and the poor, and their demands for governmental care, are only a few of the problems the physician must solve.—*Editorial - Ky. Med. Jour., Sept., 1937.*

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#### OMISSION

The name of Russell V. Fuldner, M.D., of Hartford, was unintentionally omitted from the list of those who successfully passed the last examination given by the Connecticut Medical Examining Board.

# Association of Connecticut Tumor Clinics

## CERTAIN ASPECTS OF THE TREATMENT OF CANCER OF THE UTERUS WITH PARTICULAR REFERENCE TO RADIUM\*

Thomas H. Russell, M. D., New Haven

This paper does not attempt to cover the field of cancer of the uterus as this subject has been covered by previous papers read before this organization and does not claim to be a statistical study since the limited time afforded me for its preparation as well as the allotted fifteen minutes for its reading have precluded such a study. However, there are certain phases of the subject which have not been particularly emphasized in previous discussions of this subject.

In my earlier years I was connected with hospitals where I had an excellent opportunity to observe other methods used in the treatment of carcinoma of the cervix, such as the Burns method of heat utilization, fulguration, the Wertheim hysterectomy, etc., all of which had their vogue in the early days of my hospital experience. I came away from that phase of my medical education with a strong feeling of aversion to the Wertheim operation and a realization of the inadequacy of any lesser removal with the scalpel. A high mortality, complications such as ureteral fistula and prolonged invalidism, gave me a strong bias against the Wertheim operation, even in the hands of one who was considered to be one of its leading exponents in this country. On the other hand the Burns method, while seeming brutal to a bystander, did not result in great discomfort and did give very good results, at least temporarily. I used this method in several cases with fairly satisfactory results but discarded it when radium appeared to have a bright future and have been fortunate in having had a fairly large series of cases with which to test its value.

### Statistics and Technique

I have been using radium in uterine conditions since 1922 and an analysis of my cases up to 1935

showed a total of 151 cases, of which 117 were primary carcinomas of the uterus, 6 recurrent carcinomas following hysterectomy, 26 carcinomas of the fundus, and 2 sarcomas. At the present time my malignancies of the uterus treated with radium total approximately 200. In some of the cases of carcinoma of the fundus radium was used in bad operative risks, alone or combined with X-ray. Where possible a hysterectomy was done about six weeks later.

Since the technique used may be an important factor in the results obtained, a brief description seems necessary. Only radium screened with 20 millimeters of brass enclosed in special rubber is employed. For carcinoma of the cervix cases, 50 milligrams of radium is equally distributed in a container about two inches long inserted into the uterus, and four capsules, each of 12.5 milligrams, in a flexible rubber tube are placed so as to surround the cervix, in such a manner as to cross-fire it, the radium usually being left 48 hours, or a total dosage of 2400 milligram hours, which I consider the limit of safety. The flexible rubber tube has the great advantage of being adaptable to all types of carcinomas of the cervix, being preferable to most rigid appliances on the market. For carcinoma of the fundus, where the cavity is abnormally deep, I have had constructed a special uterine container 2½ inches long, containing 100 milligrams of radium equally distributed.

### Contra-Indications to Radium

There are but few contra-indications to the use of radium in carcinoma of the cervix. Among these are (1) very advanced cases, (2) severe anaemia, (3) fungating growths in patients running a fever, (4) patients who have previously had several radium treatments for this condition, (5) cases associated with pain.

(1) In advanced cases in patients with a carcinoma of the cervix, where this growth has extended so as to involve the bladder or rectum, there is a grave risk of breaking down the

\*Read before the Association at Grace Hospital, New Haven, October 21, 1937.



carcinomatous cork and causing a vesico-vaginal or recto-vaginal fistula. Granting that in this type of case a fistula will probably occur later, still, if radium is used, whether or not it causes the fistula, it will be given credit for this by the patient or even by other physicians who may not have been acquainted with all the facts of the case. This will result in bringing radium into disrepute with the patient, her relatives and acquaintances, and it may make it difficult to persuade the next case, which may be more favorable, to have radium as she has heard of the unfortunate result obtained in the other. Such patients may get considerable benefit from moderate X-ray therapy.

(2) **Severe Anaemia:** These cases do not react well to radiation and are probably more easily burned. One or more blood transfusions should be done in advance of the treatment.

(3) **Fungating Growths Associated with Fever:** These cases should not be treated immediately by intensive radiation. The infection should be cleared up first by some method such as removal by cautery or radio-knife or by a moderate dose of screened radium, or by X-ray. Any of these preliminary treatments will soon clear up the infection so as to render it safe to use a heavy radium treatment. By no means use radium needles or seeds in this type of case without first getting rid of this infection. One of my two operative deaths occurred in such a case. The patient was not known to have been running a slight fever at the time of operation, since she was not admitted to the hospital until the night before and was treated early the next morning without my having known of her temperature. She promptly became worse and died of a general infection a few days later.

(4) **Patients who have Previously Had Radium Treatments** must be treated cautiously as they are more readily burned. Reduced dosages should be used. In general, cases which do not respond well to the first radium treatment will not do well under the second and third. However, occasionally where a small local recurrence in the vagina occurs, after previous radium treatments, intensive treatment over a small area with needles or seeds will effect a cure.

(5) **Carcinomas of the Cervix Associated with Pelvic Pain or Pain** radiating down the thighs are not favorable cases for radium since

the pain is usually caused by metastatic growths or extensions pressing on nerve trunks. These extensions are out too far to be reached by radium in the uterus or vagina. X-ray will frequently give relief and prolong life in these cases.

Of a total of two deaths attributed to the operative procedure, I have had one death from hemorrhage following radium treatment. This patient, a paralytic with marked scoliosis, had been bed-ridden several years. It was impossible to get her into a suitable position on the operating table and the carcinoma involved the left side of the uterus in the neighborhood of the uterine artery. This artery was injured in the introduction of the radium and she died about 72 hours later from hemorrhage.

There are several complications worth discussion which may occur during or after the use of radium. One of these is nausea or vomiting while the radium is in use. In my experience this is relatively rare in phlegmatic individuals but common in neurotics. In my series, about 50% of those treated with a carcinoma dose of radium were so affected. Intravenous or subcutaneous 5% glucose in 1000-1500 cc. of normal saline will frequently relieve this condition. After the removal of the radium this nausea usually ceases promptly, especially if an enema is given.

A watery leucorrhea usually lasts from a couple of weeks to a few months after radium treatments but will ordinarily wear away and should not cause any concern.

Filmy adhesions between the cervix and vagina may result from the radium treatment. They may usually be prevented by ordering a mild douche three times a day beginning a week after the treatment and continuing until the local reaction has completely disappeared. Theoretically there is some danger of setting up a pelvic infection if douches are started earlier than one week since the dilated cervix may not have contracted down and infected material may be forced into uterus and tubes.

A contraction ring of the vagina sometimes occurs as an early symptom of carcinoma of the cervix. It may also occur as the result of a radium treatment and, should not be confused with a recurrence which it may resemble.

Vesical tenesmus may occur a week or two after the treatment but usually is not troublesome and generally subsides after one or two



weeks. Rectal tenesmus may occasionally occur but is less frequent than the vesical in my experience and will also disappear in a short time unless an ulcer of the rectum develops.

Ulcers of the rectum rarely result from radium treatment but may be very troublesome. They may occur a month or more after the treatment and may last several months but usually heal spontaneously. Where they occur a considerable time after the treatment they may be confused with a recurrence or metastasis, but the diagnosis may be made with a proctoscope. In my series I have had two such ulcers which proved very annoying to the patients. Both healed spontaneously after some months.

Pyometra has been described as an occasional sequel of radium treatment. I believe it to be rare and unimportant and not necessarily due to the radium treatment. This opinion is based on the fact that in my series I have had two cases of pyometra in uterine malignancies which had not been treated with radium and only one case in which it followed a radium treatment. In the two cases in which it was already present, I proceeded with the radium treatment, although I will admit, with some trepidation, without any lighting up of the infection. A simple dilatation of the cervix will usually suffice to cure the condition.

Early in my experience I noticed that the fungating type of growth usually would show a spectacular improvement after radium, even if very extensive, but that the type which ulcerated early was apt to be disappointing in the outcome. Later I saw it stated that William Mayo had made a similar observation several years ago regarding the curability of cancer in general. He said that a growth which comes towards you is easier to take care of than one which retreats from you. Evidently this also applies to operative results as well. Those cases characterized by early ulceration without overgrowth of tissue lead me to anticipate an unsatisfactory result, while those which present a large fungating mass have as a rule produced my most spectacular results.

#### DISCUSSION

Dr. Stone stated that he thought that ulceration of the bladder and rectum occurred more frequently than shown by Dr. Russell's experience and also that Dr. Russell's figures for pyometra were low.

Dr. Larkin spoke of stricture of the ureters frequently

being the immediate cause of death in carcinoma of the cervix where radium had been used.

In concluding, Dr. Russell stated that he believed that the heavy screening of the radium which he has employed has been the cause of his low incidence of ulcers of the bladder and rectum and that he also felt that it was less apt to cause a stricture of the cervix with resulting pyometra than where radium needles or seeds were used.

In reply to Dr. Larkin's observation, Dr. Russell said that he felt that in many cases the strictures of the ureters were the result of an extension of the carcinoma, but that he felt that there was a real danger of injuring the ureters where long radium needles are used laterally into the broad ligaments as recently recommended by some.



#### COMING MEETINGS

Annual Congress on Medical Education and Licensure, Chicago, February 14-15.

Pacific Coast Surgical Association, Los Angeles, February 22-25.

American Orthopsychiatric Association, Chicago, February 24-25.

South American Assemblies of the Inter-State Postgraduate Medical Association of North America, March 19 - May 16.

European Assemblies of the Inter-State Postgraduate Medical Association of North America, May 18 - July 17.

New England Hospital Association, Hotel Statler, Boston, March 10-12.

American College of Physicians, New York, April 4-8.

International Congress of Obstetrics and Gynecology, Amsterdam, Holland, May 4-8.

Medical Society of the State of New York, New York City, May 9-12.

Medical Society of New Jersey, Atlantic City, May 17-19.

Connecticut State Medical Society, Hotel Griswold, Groton, June 1-2.

Rhode Island Medical Society, Providence, June 1-2.

American Medical Association, San Francisco, June 13-17.

American College of Surgeons, New York City, October 17-21.

American Public Health Association, Kansas City, October 25-28.



#### PROTAMINE ZINC INSULIN SQUIBB

Physicians will be interested to know that Protamine Zinc Insulin Squibb is now available in two strengths, 10 cc. vials of 40 units per cc. and 10 cc. vials of 80 units per cc.

Protamine Zinc Insulin has been available in the 40-unit strength since February 1, 1937. It was felt, however, that a higher potency was also needed for the many diabetics who require large amounts of Insulin daily.

While the efficiency of the two strengths of Protamine Zinc Insulin may be identical, the transfer of a patient from one strength to the other should be made only under the careful supervision of a physician until more experience has been accumulated.

Protamine Zinc Insulin Squibb is marketed under license from the Insulin Committee, University of Toronto.

# State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

## Evaluation Studies on Serodiagnostic Tests for Syphilis\*

The Accomplishments of the Serodiagnostic Evaluation Studies Conducted by the Health Organization of the League of Nations and the United States Public Health Service, with Comments on Laboratory Diagnosis of Syphilis in Connecticut

FRIEND LEE MICKLE, M.D., Sc.D., Director, Bureau of Laboratories

The Connecticut State Department of Health began routine tests for syphilis in 1913. At that time there was no standard or pseudostandard technic to be followed other than the complement fixation procedures outlined in a few textbooks and journal articles. Later the American Public Health Association appointed a referee on the serodiagnosis of syphilis who works through the Coordinating Committee on Standard Methods of that Association. In the Bureau of Laboratories of the Department slight modifications in procedure have been made from time to time during the years since 1913. The technic was brought strictly into conformance with the suggested method of the American Public Health Association shortly after the method was published. Other associations, notably the American Society of Clinical Pathologists and the Health Organization of the League of Nations<sup>1</sup> have been active toward the development of uniform procedures. The work of committees of these organizations led up to the evaluation studies which it is our intention to discuss.

The Bordet-Wassermann test played the first important role in the great fight made in the laboratory against syphilis. During its use by many workers in different countries numerous modifications have been suggested not only of the complement fixation test but as well of the more recently developed precipitation and flocculation tests. After preliminary investigation

the Health Organization of the League invited the authors of the various tests to laboratory conferences in the State Serum Institute in Copenhagen in 1923 and 1928 where they performed their own tests on identical samples of blood. In these huge experiments real progress was made toward getting the authors of some of the poorer tests to begin to concede the inferiority of their methods. The value of these conferences was so great that the South American States asked the League to convene a third conference in Montevideo in 1930. One reported result of these conferences was that the precipitation tests of Kahn and others were as a whole found superior to the complement fixation methods but it was nevertheless advised that both procedures should be used together. The authors of certain complement fixation tests maintain they have since improved their technics and there is a reported general desire for a fourth international conference under the auspices of the League. This work has been carried on in conjunction with studies and reports on methods of treatment of syphilis, one report alone covering the treatment of over 25,000 cases.

In 1934 a committee appointed by the Surgeon General of the United States Public Health Service announced<sup>2</sup> that a method had been developed for the evaluation of serodiagnostic tests for syphilis in the United States. It was stated that each step in the plan had been carefully con-

\*Paper presented before the Connecticut Association of Public Health and Clinical Laboratories, Hartford, Conn., November 5, 1937.



sidered with the idea of duplicating the actual procedure which occurs when the physician in private practice collects specimens of blood and forwards them to a serologic laboratory for examination. The well-organized plan was fully described in advance. It will be discussed here only in so far as it may interest us in the present discussion since references to the literature are readily available.

The first evaluation study was sponsored by the United States Public Health Service at the request of the American Society of Clinical Pathologists. Two syphilologists, two clinical pathologists and an officer of the Public Health Service was appointed by the Surgeon General to serve as a committee under his chairmanship to organize and conduct the study. A general invitation was extended to American serologists who had described either an original serologic test or a modification of a pre-existing test. In this first project 1,017 specimens of blood and 220 of spinal fluid were collected from donors over a period of three months and subdivided among 14 American serologists. In all, 14,238 blood samples and 2,860 spinal fluid specimens were tested. The purpose of the study was to determine the reliability of the several serodiagnostic methods used in the United States. In this as in the other evaluations each participating serologist used a code number so his identity was unknown to the members of the committee. There were 15 groups of donors including presumably non-syphilitic persons and patients with primary, secondary and late syphilis, both treated and untreated. The sensitivity of the tests was evaluated on the ability of the serologists to detect syphilis in blood specimens from cases of the disease. The specificity of the tests was evaluated on the ability with which syphilis was excluded from normal, presumably non-syphilitic individuals.

The results were reported<sup>3</sup> in full in 1935 and should be studied carefully by every serologist doing either research or routine serology. The following conclusions are among those reached by the Committee:

The ideal serodiagnostic tests for syphilis should possess both specificity and sensitivity. They should be adaptable to the diverse and at times unfavorable conditions existing in ordinary practice. Tests which are reliable when performed with hemolyzed, anticomplementary, or

contaminated serums or with spinal fluid specimens are obviously of more value to the clinician than those which cannot be used under such conditions.

This study indicated the relatively equal value to the clinician of efficient complement fixation tests and efficient flocculation tests as applied to either blood or spinal fluid specimens. This study further revealed that while most flocculation tests are approximately equal in value to complement fixation tests when applied to spinal fluid specimens, it is apparent that certain of the flocculation methods are relatively inadequate.

In the choice of one or more tests for general use, the Committee advised that due regard should be given to the cost, rapidity, and ease of performance. It was pointed out that certain tests which may be performed rapidly on blood specimens appeared to yield results comparable to those obtained with tests requiring a longer period for their performance.

There was some evidence that a properly performed, highly sensitive flocculation test might be used routinely for the purpose of excluding the likelihood of syphilis. If a negative result is obtained by such a method, it is quite likely that it will be negative by any other method. If the test yields a positive result it should be repeated and compared with one or more highly specific flocculation or complement fixation tests.

In the second evaluation study<sup>4</sup> the Committee attempted to meet the conditions encountered in ordinary practice more closely than was possible in the first project. The efficiency of 30 laboratories was measured. There were 11 state laboratories, 5 municipal and 14 private laboratories selected from 39 whose directors responded to notices published in leading medical journals in the summer of 1935 describing the proposed project. Nine of the laboratories requested that only one method be evaluated and 21 requested evaluation of two. Thus, 51 performances of 19 separate serodiagnostic methods were available for evaluation. The originator of each of the serologic methods performed an examination on a comparable sample of blood to control the study.

The procedure followed was the same as that in the original study. Blood specimens were selected from only two groups — approximately 200 samples from known syphilitic donors and about 100 from normal presumably non-syphili-

tic donors. The donors were again divided into groups. Each group of syphilitic donors included about 10 with untreated secondary syphilis and approximately syphilitic patients who had received varying amounts of treatment. A total of approximately 300 blood specimens was submitted to each of the 30 participating laboratories and comparable samples were simultaneously sent to the serologists performing the controls. A total of 18,840 samples was distributed to the 39 serologists performing the 19 tests.

The results achieved in many of the laboratories in this second study were found quite comparable with those attained by the originator of the method employed. On the other hand, it was reported that the serologic testing in certain state and certain local laboratories was highly inefficient. Particular attention was directed to the relative uniformity of the results obtained in practically all of the laboratories in the performance of certain tests. It was considered by the committee that a test of equal efficiency from the standpoint of sensitivity and of specificity which yields uniformly successful results in the hands of practically all serologists is distinctly superior to one which yields less uniform results.

It was concluded by the Committee that an efficient serodiagnostic test for syphilis should possess specificity of 100 per cent on specimens from normal individuals in good health, and that any test which yields even one per cent of false positive reactions should be so modified as to increase its specificity even with some slight sacrifice of sensitivity.

It was quite apparent to the Committee that the performance of some of the tests in some of the laboratories was inadequate. It was suggested that testing in some laboratories could be improved to compare with the demonstrated accuracy of the tests in the hands of the originators or as performed in other laboratories. It was recommended that certain tests be either modified or abandoned.

The examination of the clinical records emphasized to the Committee that a serologic diagnosis of syphilis unsupported by history or clinical evidence never should be made on the basis of a single positive blood reaction. When a positive blood test is obtained in a person who presents no history or clinical evidence of syphilis, the Committee recommended the practice of repeating the test in the same laboratory, or in another

laboratory, utilizing two different tests.

The studies made convinced the Committee that, if two serodiagnostic tests are to be performed, it is immaterial whether two efficient complement fixation tests, two efficient flocculation tests, or a combination of one efficient flocculation test and one efficient complement fixation test is selected. The second study again indicated relatively equal value to the clinician of efficient complement fixation tests and efficient flocculation tests as applied to blood specimens.

The experience of the Committee showed that it is satisfactory to report the results of qualitative tests as merely positive, doubtful or negative. It was suggested that in this manner the confusion arising from the use of various symbols by different laboratories would be avoided. The Committee recommended to all serologists this simple method of reporting qualitative tests and suggested that its adoption should be of great help to the clinician.

It was felt by the Committee that the directors of state and of local laboratories performing serodiagnostic tests for syphilis should have, and should avail themselves of, the opportunity of comparing their results with those of well qualified serologists in other laboratories performing the same test on comparable samples from known syphilitic and from presumably non-syphilitic individuals.

The results and observations on the first and second evaluation studies led the Committee to recommend that the United States Public Health Service make an annual comparison of serodiagnostic tests for syphilis as done by all state laboratories and to recommend also that, in turn, the state laboratories should offer a similar evaluation service to the municipal, hospital and private laboratories in their territory. It was, however, quite apparent from the results reported by some of the state laboratories that it would be unwise for them to inaugurate a method of control of the local laboratories within their boundaries until they themselves had attained a higher level of efficiency.

In accordance with the recommendations of the Committee, the Surgeon General of the United States Public Health Service in 1936 invited the health officers of the 48 states and the District of Columbia to participate in an evaluation study. This invitation followed the recommendations<sup>5</sup> for a venereal disease control



program proposed by a committee advisory to the United States Public Health Service. The purpose of this third project was to determine the efficiency of the performance of the various serodiagnostic tests as carried out in those laboratories. The invitation was accepted by the health officers of 39 states. Four serologists, Drs. Hinton, Kahn, Kline and Kolmer, were designated to carry on the control tests. The procedures followed were similar to those described for the earlier evaluations. Single specimens of approximately 250 ml. were withdrawn from each donor to furnish about 5 ml. of whole blood to each participating laboratory. The period of collecting and testing the group of 300 specimens used in this study extended from November, 1936, into March, 1937. Specimens were taken from 100 presumably non-syphilitic and from 200 syphilitic individuals. Of the 39 participating laboratories, 8 entered one complement fixation or flocculation test, 25 entered one complement fixation and one flocculation test, 2 entered two flocculation tests each and four laboratories entered three tests each — a total of 74 serologic performances. Altogether, 11,739 samples were distributed.

Following this third evaluation study, comment and recommendations of the Committee, now augmented by a second officer of the Public Health Service, were as follows:

One of the essential features in any program for the control of syphilis is the general availability of efficient laboratory diagnostic service. Reliable serodiagnostic testing of blood and spinal fluid specimens is a valuable method for the diagnosis of syphilis and for the estimation of the influence of therapeutic agents. While it is not deemed feasible or advisable to restrict the performance of serologic testing to state laboratories, these laboratories should maintain a sufficiently high standard to provide a model of efficiency for the municipal, hospital, and private laboratories within the State.

A study of the tables and charts reveals that some of the state laboratories are qualified neither to perform efficient serodiagnostic service nor to inaugurate any system of state licensure or approval of local laboratories within their respective states. On the other hand, it is gratifying to observe that in many of the state laboratories, the performance of serodiagnostic tests for syphilis is maintained at a highly efficient level.

In many of the laboratories participating in this study the results attained compared most favorably with the control tests as carried out by the originators of the methods. It should be observed, however, that in some of the laboratories performing more than one test for purposes of evaluation, one of the tests was performed in an efficient manner while the other yielded poor results. In this connection it should be stated that several laboratories entered tests which they did not use as a routine in order to determine their ability to perform such tests efficiently.

A study of the technics employed in the serodiagnostic tests for syphilis submitted by the state laboratories reveals that many of them have deviated greatly from the technics described by the originators of the methods. Many of the tests that were designated as Hinton, Kahn, Kline, or Kolmer tests by the performers were so modified that it would be an injustice to the originators of the methods to refer to them as such.

The data derived from this investigation indicate that the routine employment of a single serodiagnostic test, although performed by competent workers, is occasionally unreliable. If a single test is used as a routine the laboratory should be prepared and willing to carry out a second test with a different method upon request.

The extraordinary disparity in the results of this study indicates the urgent need for the provision of intensive and extensive training of personnel in certain of the laboratories.

The Committee made the following recommendations to state health officers:

1. That provision be made for adequate training of state and local laboratory technicians in the laboratories of the originators of the methods employed in the respective laboratories, and that in the future only thoroughly competent technical personnel be employed. Funds now being made available to the states under the provisions of the Social Security Act and allotted for the training of personnel should be utilized for the tuition and stipend of the state and local laboratory technicians.
2. That a system of periodic inspection of state laboratories by thoroughly trained serologists of the United States Public Health Service be inaugurated and made available upon the

request of state health officers, and that advantage be taken of the system of comparative examination of serodiagnostic tests for syphilis to be extended annually by the United States Public Health Service.

3. That the facilities available for special study of serologic methods in the Venereal Disease Research Laboratory of the United States Public Health Service at Stapleton, Staten Island, New York, be further utilized for the training of personnel from state laboratories.

4. That the need is again emphasized for the development by state laboratories of a system of periodic comparative examinations of the performance of serodiagnostic tests by municipal, hospital, and private laboratories located within the respective states.

5. That full advantage be taken of existing local laboratory facilities and that provisions be made to approve and to subsidize qualified local laboratories for the performance of diagnostic services in the control of syphilis.

The Bureau of Laboratories of the Connecticut State Department of Health took part in the third evaluation study performing the complement fixation and Kahn test procedures used routinely for several years and also the Kline diagnostic test used only experimentally. The Bureau had previously taken frequent opportunity to check doubtful results with laboratories in other states and various laboratories in Connecticut but this was the first opportunity ever presented for a comprehensive evaluation of the technics routinely used. The opportunity was embraced with enthusiasm.

It had long been felt — and announced to physicians — that the Connecticut complement fixation test was relatively insensitive as compared with the Kahn standard diagnostic test. The sensitivity secured with the Connecticut complement fixation test in the evaluation study, when corrected for doubtful reactions by the Committee, was 75.9%. As no control for this particular test was run, that figure must be compared with a sensitivity of 88.2% secured by Dr. Kolmer. When compared with the results obtained by other states the Connecticut sensitivity attainment is above that of 16 of the 34 other states participating in this test while 18 showed higher ratings. Some states showed corrected sensitivity percentages as low as 40.9%, 52.1% and 55.0%. It is interesting that 11 of

the 18 laboratories with higher ratings than Connecticut showed some lack of specificity. A specificity of 100% was obtained with the Connecticut complement fixation technic; that is, no false positive results were secured. If we must have results that are not all that might be desired it is without doubt preferable to miss cases of syphilis by laboratory diagnosis rather than to obtain falsely positive findings.

The results secured by the Connecticut laboratory with the Kahn standard diagnostic test were somewhat disappointing since we had every reason to believe — and still so believe — we were following the technic described by Dr. Kahn in his printed directions and in first hand instructions he had given to our workers. The test in our hands showed a sensitivity of 82.3% when credited by the Committee for doubtful reactions. This figure may be compared with a corrected sensitivity figure of 86.6% obtained in the control test by Dr. Kahn. As compared with the 23 other laboratories performing the Kahn standard diagnostic test, 13 showed higher corrected sensitivity percentages, those of two laboratories were the same as the Connecticut figure and 8 states showed poorer ratings. One state obtained a corrected sensitivity percentage as low as 52.1% and another 54.1%. The specificity obtained with the Connecticut technic was 100%, no false positives being obtained. Since the conclusion of the project a careful study of our Kahn test technic has been made. The sensitivity of the antigen against which the antigen used in our tests had been standardized has been found to have been weak. It was an antigen purchased and used in the belief that it was a desirable standard. It has been decided if antigens are standardized in the future against a purchased standard to standardize them against antigens obtained direct from Dr. Kahn's laboratory.

The Kline diagnostic test was being used in the Connecticut laboratory only experimentally. With that technic a sensitivity of 89.4% was secured when credited by the Committee for doubtful reactions. Of the 5 other laboratories performing the Kline test, the highest sensitivity obtained by any was 92.4% and the lowest, 87.7%. Only one state laboratory obtained a specificity of 100%. A specificity of 99% for the Connecticut laboratory was reduced to 98% by correction for doubtful reactions.



The Connecticut State Department of Health is planning to take part in the fourth evaluation series beginning in November, 1937. Certain changes in technic have been made during the year. For example, slight alterations have been made in the way the complement fixation test is performed. The Kahn antigen standardization is now on a different basis. It is believed that the serodiagnostic technic of the Bureau has been improved as a result of the evaluation study. As has been announced to physicians, all blood specimens are now routinely examined in the Bureau of Laboratories by the Kline exclusion test as a screen test using an antigen more sensitive than that generally used elsewhere, even in Kline exclusion tests. By this procedure it is expected to screen out for additional testing from 5 to 10 per cent of false positives in addition to the true positives. Only those specimens frankly negative by the Kline exclusion test are reported to the physician. All positives by this test are examined by the Connecticut complement fixation and the Kahn standard diagnostic tests and only those findings reported. In the coming study we hope not only to have the complement fixation and the Kahn technics re-evaluated but to have evaluated the Kline exclusion technic and the Hinton flocculation test. The Hinton test made an excellent showing in the hands of other serologists in the last project. We have been using it experimentally and comparatively for several months with the thought that if the results with it are better than by complement fixation it may be desirable to substitute the Hinton test for the more complicated and more expensive fixation method.

The recommendations of the evaluation committee have been followed in an attempt to profit by the results of the last study. The State Commissioner of Health is requesting that the inspection service offered to state laboratories through thoroughly trained serologists of the United States Public Health Service be soon made available to Connecticut. The reporting of tests as recommended on the basis of positive, doubtful and negative findings, with no report of the degree of positivity, is under consideration. The technic has been carefully checked with other laboratories both within and outside of Connecticut. A special effort is being made to follow, without deviation, the technics described by the originators of the several tests. The

serologists have been going through an intensive period of training. One senior serologist has spent a period of study in the Venereal Disease Research Laboratory of the United States Public Health Service. Two members of the staff have spent some time in the laboratory of the originator of one of the tests. It is hoped the showing to be made in the 1937-38 evaluation study will be all that can be desired.

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#### A. M. A. RADIO PROGRAM FOR FEBRUARY AND MARCH

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##### Preventing Future Illness

February 2 — Rheumatism and Arthritis. Known factors in the causation of arthritis and its care.

February 9 — Healthy Hearts and Arteries. Known ways of protecting the heart against infection and hygienic abuse; how to live with heart disease.

February 16 — Don't Fear Cancer - Fight It. Known factors in the cause, prevention and treatment of cancer.

February 23 — Overcoming Diabetes. Individual efforts plus medical aid will win against diabetes.

##### Public Health

March 2 — Water, Waste and Sanitation. Importance of community control of water supplies, sewage disposal and general sanitary matters.

March 9 — Protecting Perishable Foods. What the community can and must do to protect fresh foods such as fish, fruits, vegetables, meats, bakery goods.

March 16 — Keeping Books on Health. The meaning and the importance of vital statistics, contagious disease reporting and community health records.

March 23 — Catching Disease from Animals. Rabbit fever, rabies, undulant fever and similar infections, and what can be done about them.

# The JOURNAL of The Connecticut State Medical Society

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Charles Mirabile, M.D., Hartford

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

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**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

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## • Editorials •

### TUBERCULOSIS IN THE ADULT

In spite of the fact that the general practitioner has for years been urged to turn his cases over to the specialist — and recently even to the surgeon — tuberculosis in the adult remains primarily his concern; for, at the two important stages of diagnosis and of after-care the problem is almost wholly his.

There are many points to remember as regards diagnosis. The chief source of the disease is from families where there has been prolonged contact with another case. In such households, *all* members should be examined and X-rayed. Even negative films do not exclude tuberculosis and films should be repeated if suspicious symptoms subsequently arise.

Tuberculosis follows no given pattern in its development and a carefully taken history still remains our best guide to an early diagnosis. Next comes physical examination with special attention to the presence of rales after expiratory cough. Signs limited to the bases do not, as some claim, exclude tuberculosis — it not infrequently makes its first appearance in these areas. Sputum should always be examined on several successive days and, if negative, even then be given only moderate emphasis. X-ray films are very valuable when studied in conjunction with the clinical history but cannot be relied upon exclusively. Physical diagnosis has even greater limitations. The presence of considerable lesions and even fair sized cavities in the X-ray films, without any suggestive signs on physical examination, is by no means rare. Therefore, if we have cause to suspect tuberculosis we should insist upon an X-ray although physical examination and sputum both be negative.

We must remember also that tuberculosis does not always appear as a slowly developing, chronic disease. That was the usual picture thirty years ago. Today, however, we see many cases starting like an acute grippe, with no suspicious previous history and producing extensive lesions and even cavitation within one or two weeks. We must therefore study thoroughly all respiratory infections which are slow of clearing, espec-



ially if there be any history of tuberculosis in the family. Definite though slight lesions discovered by X-ray when the patient is symptom free should always be given sanatorium treatment and education. We have no test to tell us which of these cases will readily become active, and many will have cause to blame us later if we dismiss them with merely the caution to "take good care of themselves."

As regards after-care, all patients need supervision during the first years after arrest of the disease. The two chief causes of relapse are acute respiratory infections and lowered general health and resistance. All acute respiratory infections should be thoroughly treated, and the lungs carefully checked before the patient returns to work. The general health should be closely watched. The patient should be required to come for review at least every three months. If his weight or strength are failing he should be made to take whatever additional rest and diet may be needed to restore them; and should do this without delay. Whatever tends to impair the general health is a menace to the arrested case of tuberculosis. If physicians would keep these cases under regular supervision for the first two years the results of treatment would be much more permanent.



### "THE BIRTH OF A BABY" PROHIBITED IN NEW YORK STATE

Public showing of "The Birth of a Baby" has been prohibited in New York State. That alone is not so startling although it is distinctly disappointing to the proponents of health education. The grounds on which the Education Commissioner denied the license are absurd, to say the least. Granting, in his ruling, that the picture is a "medical treatise in pictorial form presented for the alleged purpose of enlightening prospective fathers and mothers," Commissioner Grant then delivers the knock-out blow by classifying the film as "indecent, immoral and would tend to corrupt morals". Small wonder that the Editor of the Ohio State Medical Journal is forced to snicker! New York apparently prefers to teach its youngsters how to be "big-shot gangsters and Twentieth Century Cassanova", and, instead of presenting a picture of home life as it should be, would familiarize its youthful citizens with the secrets of the "Gold Coast harems".

Bathing beauties, bank robberies, even the Greenwich Village select cocktail parties are preferable to anything which informs the spectators that competent prenatal and postnatal care are essential to the mothers of the future citizens of our country! Is this censorship or is it just plain ignorance and myopia?



### GROUP HEALTH ASSOCIATION, INC.

New England seems to be the storm center of medical controversy. Group Hospital Association, Inc., of Washington, D. C., again focuses our attention. This time our neighbor, Dr. Richard Cabot of Boston, is under fire for his statements at the inaugural celebration of the new clinic run by Group Hospital Association, Inc., made up of employees of the H. O. L. C., and backed in part, we are told, by the Twentieth Century Fund. Dr. Cabot described prepayment group health insurance as "better doctoring for less money", according to the Washington Herald-Times and quoted in the New England Journal of Medicine. It is a grave question whether or not we would subscribe to all of the following. We again quote Dr. Cabot: "Salaried doctors are more honest than private doctors who often are tempted to perform expensive operations which are unnecessary. A doctor on a steady salary, sure of his income, is less likely to be tempted to perform expensive but unneeded medical services than a private doctor who has no certainty of income."

If Dr. Cabot's statements are true, the medical profession obviously needs a re-awakening. Dr. Cabot is indicting the entire profession because of the sins of a few. Of this we feel certain. The ideals and principles of the profession with its ancient Hippocratic Oath still viable, call for action which will deny any such practice as Dr. Cabot believes is wide spread. Prepayment group health insurance has many evils which Dr. Cabot with his socially minded attitude likes to overlook but which cry out to us from all over Europe and even from some parts of our own country. We call your attention to the editorial in the January 1938 issue of this Journal from which we quote: "The standards of medical service maintained up to this time by the profession must suffer under this wholesale bargain plan and the physician who sells himself for this kind of practice will awake disillusioned as well as disliked".

### DR. JAMES R. BLOSS BECOMES EDITOR EMERITUS

After twenty-two years as Editor of the West Virginia Medical Journal the genial Dr. Bloss of Huntington has retired from the active editorship to become editor emeritus. It would be hard to find a medical editor who is deserving of more praise for his years of faithful service. The West Virginia Medical Journal stands today as a testimonial to the ability and vision of one man, truly one of those editors who are born, not made. As an example of a well-balanced, readable publication, this journal is pre-eminent among the state society journals of this country. Dr. Bloss is widely known in medical administrative circles and among the gynecologists and obstetricians. We covet for him an ever increasing circle of friends as his just reward.



### THE FAULTY FOOD AND DRUG ACT

Secretary of Agriculture Wallace has recommended to Congress drastic strengthening of the Food and Drug Act to prevent a recurrence of the recent tragedy when seventy-three persons died from "elixir sulfanilamide". It is common knowledge that the present law is wholly inadequate to protect purchasers from such medicines. The pity is that it takes a tragedy such as has been recently experienced to arouse our leaders to action. There is no control today to prevent incompetent drug manufacturers from marketing any kind of lethal potion. The S. E. Massengill Co., of Bristol, Tenn., may yet have to face prosecution in the Federal courts.



Deaths from puerperal diseases in Connecticut for the first ten months of 1937 showed a decrease of 35 over the number of deaths from the same causes in the corresponding period of 1936. This is a record of which we may be proud. There were 92 such deaths in the first ten months of 1936 and 57 in 1937.



The Connecticut State Sanitary Code now carries regulations pertaining to trailer coaches requiring the proper facilities for the care of and disposal of waste. These regulations cover sanitary facilities in trailer camps.

## From the Secretary's Office

CREIGHTON BARKER, M.D.

258 Church Street New Haven

### Committee Activities

The Society's Committee on Public Health and the Committee on Hospitals have met recently in the State Office. Dr. H. B. Hanchett, who for some time has been the Chairman of the Hospital Committee, has resigned and the Council has appointed Dr. H. B. Lambert to take his place. Both of these committees and the Technical Advisory Committee serving in cooperation with the Crippled Children's Bureau of the State Department of Health are constantly meeting new problems. The members of these committees are faithful in their attendance. The Society has recently been asked to designate a Technical Advisory Committee to the Welfare Commission to aid in outlining a program for the education and rehabilitation of the indigent blind.

### State Cancer Program

Progress Report No. 1, "Cancer Mortality in Connecticut," has recently been published. It is the joint contribution of the Tumor Committee of the Connecticut State Medical Society and the Division of Cancer Research of the State Department of Health. This report restates and correlates much of the statistical information that was shown in the Society's exhibit at the American Medical Association and the American Public Health Association. This joint endeavor between our Society and the Department of Health is taking definite form and ultimately should be fruitful of great accomplishments. Copies of Progress report No. 1 may be obtained from the office of the State Health Commissioner in Hartford.

### Group Accident and Health Insurance

The group plan of health and accident coverage for members of the State Society has now been in operation nearly a year. There are about 800 members of the Society covered by the group contract and many new applications are being received. To date there have been 84 claims paid for members of the Society including one accidental death claim of \$5000. Members report that their claims have been fairly and expeditiously adjusted through the Company's local office. Several other State Societies are



interested in our experience with this type of insurance and acceptance of similar plans is contemplated by them. Members of the Society who wish information concerning this group coverage may direct their inquiries to the Secretary's office.

### **Taxes Under the Social Security Act**

Members of the Society are reminded that beginning with January 1938 employers must make quarterly tax returns instead of the monthly return that was filed during 1937. The report should be made on form SS-1. The tax rate remains the same, one per cent.

The Internal Revenue Bureau on December 27, ruled that a physician in general practice, under verbal contract to render medical service to employees of a company where the company is responsible for the employees' health, is not a taxable employee of the company even though he gets a monthly retainer from the company.

### **Annual Meeting, 1938**

Plans for the Annual Convention of the Society to be held on June 1 and 2, at Hotel Griswold, Groton, are well under way. The New London Committee on Arrangements under the Chairmanship of Dr. H. W. Wellington has organized and is doing its utmost to make the meeting a success.

### **Yachtsmen**

Yachtsmen in the Society are invited to take their boats to the Annual Meeting. A good anchorage will be provided and Commodore Douglass of the Shennecosset Yacht Club will make you welcome. Those interested in a yachtsmen's rendezvous during the meeting will please communicate with Dr. Edmund L. Douglass, 188 Thames Street, Groton.

### **American Foundation Studies in Government**

The American Foundation that carried on the study of medical practice which was published under the title, "American Medicine, Expert Testimony Out of Court" is now engaged in a study of public medical services. This study is undertaken on the theory that the best way to illumine the difficult question as to how far government should or should not function in the provision of public health service and medical care is to investigate the degree of present governmental functioning in this field and, in some degree, to evaluate performance by assembling a

wide range of competent opinion. The study includes aspects on public health service (federal, state, and local), tax supported medical education, tax support for hospitals, tax supported research, tax supported laboratories and administrative procedures for the care of the indigent sick. The Foundation will have no medical program, no recommendations to make or conclusions to offer.

## **Our Neighbors**

### **MAINE**

President Wakefield of the Maine Medical Association is interested in seeing the maternal mortality lowered in his state. Maine's rate, according to Dr. Wakefield, is 57 per 10,000 live births while the maternal death rate of the country as a whole is 63.3. Maine stands exactly midway among the States. On the other hand, the neonatal death rate is high at 38.5 per 1,000 live births. There are but seven states with a higher neonatal rate.

The city physician of Lewiston is an osteopath. The Androscoggin County Medical Society has sent a letter of protest to the Lewiston Council, recommending that the salary of this office be raised to a respectable level such that it would warrant consideration by medical practitioners.



### **NEW HAMPSHIRE**

The University of New Hampshire has a new physician in the person of Dr. George G. McGregor of Durham. Dr. McGregor succeeds Dr. William M. Prince, resigned.



### **RHODE ISLAND**

An anonymous donation of nearly \$200,000 was recently given to the Rhode Island Hospital, Providence, for use in fighting cancer, newspapers recently announced. It is planned to use the money as the nucleus of an endowment fund to establish a self-sustaining cancer service for indigent patients at the hospital, it was said.

## MASSACHUSETTS

Harvard University has recently announced the subjects and speakers of its course of free public lectures on medical topics that are given each year at the Harvard Medical School. These lectures take place Sundays at 4:00 P.M. The remainder of the schedule is as follows:

February 6. Colds, Influenza, and Pneumonia. Dr. Maxwell Finland.

February 13. Menstrual Disorders and the Menopause. (For women only). Dr. John Rock.

February 20. Overweight and Underweight. Dr. F. Denette Adams.

February 27. Pain in the Abdomen. Dr. Channing Frothingham and Dr. Richard Miller.

March 6. Heart disease, Dr. Herman Blumgart.

March 13. Nervous Fatigue. Dr. Merrill Moore.

March 20. The Family Medicine Cabinet. Home Remedies and When to Use Them. Dr. Reginald Fitz.

March 27. Arthritis. Dr. Walter Bauer.



## NEW YORK

The Board of Directors and the Medical Board of Peekskill Hospital are at odds over a proposal of the directors to levy a charge of \$10.00 per month for the collations served the physicians at the close of their staff meetings. The doctors are said to have been paying from \$4.00 to \$7.00 for the 15 to 20 lunches served after the meetings. The directors have been heard to remark that the "hospital was not running a hotel". Strange, is it not, that the physicians can found hospitals and give of their services gratis to ward patients and yet the Boards of Directors, not in all cases fortunately, consider a few sandwiches and a cup of coffee too much to give in return!

The Bulletin of The New York Academy of Medicine appeared in January clothed in a new dress. To quote the editorial announcement, "the new format is intended to symbolize the change, or hope of change, which the Bulletin is to undergo". Some far-seeing members have

recognized the apparent need for developing the Academy's opportunities for publication. A board of Editors has been appointed. The usefulness of the Bulletin under this new regime should be greatly increased.

Definite progress in a plan which should place New York City in the forefront of all centers of medical education was marked recently when the cornerstone of the Kips Bay-Yorkville Health and Teaching Center building at 411 East 69th Street was laid. In announcing the ceremonies, Mayor LaGuardia revealed that Health Commissioner John L. Rice has completed negotiations with five of New York's medical schools for the world's largest program in the training of medical students in preventive medicine and public health administration.

The program involves the joint use by the Department of Health and the medical schools of five new health center buildings costing \$1,599,580 on a cooperative basis "which will insure unprecedented training facilities for medical students, nurses and other public health workers."

Two other centers are under construction now while work on the remaining two will start soon. The five new teaching centers are part of Commissioner Rice's district health center program which envisions the erection of thirty district health centers throughout the city.—*N. Y. State Jour. Med.*, Sept., 15, 1937.



## NEW JERSEY

Elizabeth General Hospital has a new clinic for the treatment of cancer and allied diseases, dedicated on December 11, 1937, in memory of Dr. James S. Green who was associated with the hospital for many years. Various organizations connected with the hospital raised the sum of \$25,000, thus making the clinic possible.

In New Jersey several of the county societies are giving serious consideration to the desirability of establishing an office, equipped with a telephone and a clerk. Already four counties societies have established such offices with a success which is an encouraging precedent for other societies.



## - NEWS -

### *from County Associations*

#### Fairfield

Dr. Joseph S. Tennen, 43, physician in Stamford for twelve years, died on December 12 at Ann Arbor, Michigan. He had gone to the University of Michigan Hospital for treatment shortly before his death.

Dr. Daniel C. Patterson of Bridgeport addressed the Dutchess County Medical Society, Poughkeepsie, December 8, 1937, on "Injection Treatment of Hernia".

#### New Haven

Dr. and Mrs. Louis Nahum of New Haven celebrated their twentieth wedding anniversary on January 8. Many guests from out of town were present to offer their congratulations.

#### Hartford

Much discussion has arisen over the question of the advisability of closing the Hartford Municipal Hospital as a general hospital and using it as an isolation unit, due to a recent statement by Mayor Spellacy that this move would result in a very definite economy to the city. Careful study of the whole problem has revealed that quite the contrary would be the case. The issue was brought to a head by the need of the present Isolation Hospital for a new building.

At a special vesper service in Trinity College Chapel on December 11, a pew-end was unveiled as a tribute to Dr. Horace Wells, discoverer of anesthesia. The pew-end has three carved figures on it, a profile of Dr. Wells in the center, Aesculapius, God of Medicine, at the top, and St. Apollonia, an aged martyr of Alexandria and patroness against toothache completing the triad. Dr. Walter R. Steiner of Hartford delivered an address, outlining the scientific and historical aspect of the discovery of anesthesia.

The Hartford Hospital Training School for Nurses recently presented the executive committee through the Director of the hospital \$400 as a gift toward the proposed new \$2,500,000 building. This came as a complete surprise to the hospital authorities and should serve as an

inspiration to others to do their share in meeting this urgent need.

Dr. Robert V. Boyce of Hartford died of pneumonia on December 29 after an illness of two weeks. Dr. Boyce was forty-seven years old and was an active member of the staff of St. Francis Hospital. He was best known for his efficient work as president of the Hartford Board of Health during the flood of 1936.

The new building fund of the Hartford Hospital has been augmented by a gift of \$100,000 from Mrs. Era C. Root, widow of the late Dr. Edward K. Root. Mrs. Root gave the hospital another \$100,000, the income of which is to be used for "current purposes".

At the annual meeting of the Hartford Medical Society held on January 3, Dr. Edward J. Whalen was elected president for 1938. He succeeds Dr. Otto G. Wiedman who was presented with an engraved gavel by the Society. Dr. Wiedman in his retiring address dealt with psycho-neuroses as a group of diseases decidedly on the increase. Dr. Howard W. Brayton was elected vice-president and Dr. J. Raymond Glazier, secretary. Dr. Walter R. Steiner was re-elected librarian and Dr. Franklin L. Lawton, treasurer.

On December 2, 1937, Donald B. Wells and Sidney S. Quarrier, both of Hartford, were elected to membership in the New York Academy of Medicine.

The Medical Information Bureau of the Hartford Medical Society and the Hartford County Medical Association has arranged four meetings on topics of interest to the profession in the field of public relations and medical economics. The object of these meetings is entirely an informative one. The first of the series was held in Hartford on January 12 when Dr. John Peters of New Haven discussed "The Principles and Proposals". There was an attendance of 100. The remaining schedule is as follows:—

February 9 — Dr. Kingsley Roberts of New York, Medical Director of the Bureau of Co-operative Medicine. Subject, "Co-operative Medical Program."

March 9 — Dr. Ernest L. Hunt, Worcester, Mass. Subject, "The Hunt Plan" (presented before the Mass. Medical Society).

April 13 — Dr. George Baehr, New York (tentative). Subject, "Thirty-five Dollar Diagnostic Clinic".

## • OBITUARIES •

### WADE STANLEY WRIGHT, M.D.

1889 - 1936

Dr. Wade Wright was born in Allegheny Pennsylvania, which is now Pittsburgh, on August 28, 1889.

His early schooling was at the Allegheny High School and the University of Pittsburgh, where he took his B.S. in 1910. Following his graduation, he entered Harvard Medical School, receiving his M.D. in 1914.

After internship at the Massachusetts General Hospital, he was instrumental in organizing the Industrial Clinic at that institution, at which all the patients entering the out-patient department were studied in detail regarding their occupation.

He married in 1916, Marie Munroe of Pittsburgh, who survives him with two children, Donald and Barbara.

Shortly after America's entrance into the world war, he went over seas with Base Hospital No. 6, Massachusetts General Hospital Unit, in July 1917.

After the Armistice was signed, he was made Deputy Commissioner in charge of the Medical Relief Commission, sent by the American Red Cross to the Polish front, in the typhus area, and supervised medical relief among the Polish refugees.

Returning to this country in 1919, he was made Deputy Commissioner of Labor of the State of Massachusetts, a position which he held only a few months, when he became an instructor of Industrial Medicine at the Harvard Medical School, and continued for several years in charge of the Industrial Clinic, operated by the school, as a department of clinical research in occupational disease problems, at the Massachusetts General Hospital.

In 1924, he was appointed Assistant Medical Director of the Metropolitan Life Insurance Company, to organize an Industrial Health service for group policy holders. He held this position until his retirement in 1930, because of ill health.

After a sojourn at Gaylord Farm in Wallingford, he settled in Roxbury, where he was instrumental in starting the "Glenacres School" for boys and there he taught science.

Late in 1935, he suffered a relapse and returned to Wallingford, where he died August 25, 1936.

He was contributing editor to the Blumer edition of Forchheimer's *Therapeusis* and also to Blumer's "Bedside Diagnosis". He also contributed articles to the *Encyclopedia Britannica* and to *Cecil's Medicine*, on industrial medicine and hygiene and was engaged in a revision of his articles on the latter at the time of his death.

He became a member of this Association in 1935, hoping to be able to attend the meetings, but unfortunately for us, this hope was never realized and we missed the opportunity of associating with one of the country's pioneers in the field of industrial medicine and hygiene.

W. Bradford Walker, M.D.

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### KENT OAKLEY BROWN, M.D.

1870 - 1936

Dr. Kent Oakley Brown expired at his home at 158 Linnmoore Street, Hartford, Connecticut, on December 8, 1936. Dr. Brown was born in Oxford, Ohio, June 21, 1870. He moved to Kansas with his parents during his childhood and received his elementary and medical training in that State. He was a graduate of Washburn College, Topeka, Kansas, and of the University of Kansas Medical Department, having been graduated from the latter in 1902. He practiced as a city physician in Topeka, Kansas for a short period and then became assistant physician to a private hospital in Salem, Massachusetts, where he remained until 1904. He then took up duties in the Walnut Lodge Sanitarium in Hartford, Connecticut, from 1905 to 1911, when he went into private practice in New Haven, Connecticut, and continued such private practice for about two years. During the World War Dr. Brown was a member of the medical staff in the Winchester Repeating Arms Company. He entered the employ of the United States Veterans' Bureau in 1921. As such an employee he was first stationed in Washington, D. C., then in New York City and then in Hartford, Connecticut, where he served as the medical member of



the rating board in the Veterans' Bureau which was then located on Main Street in Hartford. When the Veterans' Administration opened its Government facility in Newington, Connecticut, on March 28, 1931, Dr. Brown was transferred to that facility and he continued to serve as the medical member of the rating board.

Dr. Brown was a senior elder in the Presbyterian Church of Hartford. He was a member of the American Medical Association, the Association of Military Surgeons of the United States, and the Hartford County Medical Association.

He is survived by his wife, Margaret Eliza (Lewis) Brown, one brother, Dr. Newton Brown of Wisconsin, and a niece and nephew, children of his deceased twin brother, Thayne Brown of Milwaukee, Wisconsin.

T. F. Maher, M.D.

## • Abstracts •

CHARLES W. GOFF, M.D.

*Pain in Lumbar Region from Orthopedic Standpoint.* M. F. Sitenko. *New Surgical Archives*, 38: 4-5. No. 151-152, 1937. *Dnepropetrovsk, Soviet, Russia.*

Every clinic shows a large percentage of cases complaining of pain in lumbar region. This author considers 12 groups of causes for this pain and discusses the more frequent ones. Anomalies of vertebrae often cause localized pain with operative correction producing complete relief. Such pains develop after thirty years of life and are precipitated by trauma, strain, pregnancy or fast developing obesity. Trauma to the spine, such as fracture of lamina, spinous or transverse processes, compression fracture of the body and trauma to ligaments cause pain in the lumbar region. Sitenko considers it important to study the mechanism of the injury to define location of pain. He quotes American authors who describe a special group causing lumbar pain, namely the diminishing or complete disappearance of the intervertebral disc in the lumbosacral junction. This condition causes pressure on the corresponding nerve roots. He considers a third group to consist of two forms of spondylitis, one a deforming spondylitis, and two sacroarthrogenetic telalgia which should not be confused with radiculitis or neuralgia. The treatment is based on rest, immobilization and support for spine by a special belt. In cases of ischiatic scoliosis, he uses a supporting body cast. In acute backache, an epidural injection of 1¼% novocaine in saline is given. The author reports a considerable number have marked relief. Local applications of heat are recommended. In cases of spina bifida, operative fusion of spinous processes is the method of choice. Pain

in the lumbosacral region is considered of great importance from a social-economical point of view, because of the time of disability, which is generally quite long.

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*Novocaine Block as a Method of Treatment of Acute Pain Caused by Different Traumata.* A. A. Fedorowski, *New Surgical Archives*, 38:4-5. No. 151-152, 1937. *Dnepropetrovsk, Soviet, Russia.*

Trauma to peripheral nerves has been treated by this author with a novocaine block. 1¼% novocaine solution is used. In lumbar block 60-100 cc. are injected. Cases are classified in three groups:

1. Pain due to traumata of soft parts, joints and bones. In 29 cases, 15 had complete relief, 12 showed considerable relief, and only 2 showed no relief at all.

2. Pain in stumps of extremities after amputations. This group showed excellent results in every case.

3. Pain produced by third degree burns of extremities. This pain did not disappear completely, but the author noted considerable relief.

In summarizing the results, 50% of cases showed complete relief, 40% showed marked relief from pain and 10% did not improve at all. Relief from pain sometimes began two or three hours after the novocaine block and lasted for one to two days. The procedure was then repeated. No complications are reported. In comparing the use of novocaine block with hypnotics and narcotics, the author concludes that greater relief is obtained and a more lasting effect produced by the block.

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*Clinical Evaluation of Colloidal Sulphur in Treatment of Arthritis.* S. C. Woldenberg. *Jour. Bone & Joint Surg.* XIX, 4, Oct. 1937.

Since 1932 the author has used sulphur in one form or another for treating arthritis of the atrophic type. He admits the rather hypothetical character of some of his views but makes a plea for greater use on broader planes with the clinician having the last word. He concludes that arthritis is a metabolic disorder, super-imposed by infection or some other unknown factor, causing a break in compensation of the body. The early administration of colloidal sulphur in cases of acute and chronic arthritis is important in the prevention of unnecessary suffering, prolonged invalidism and deformities. Colloidal sulphur, given intravenously, produces no toxicity, can be given in series of ten injections, 5 cc. per injection, and repeated three or four times. It assists in restoring normal metabolic activities.

## ANNUAL MEETING

HOTEL GRISWOLD, GROTON

JUNE 1 and 2, 1938

# PUBLICATIONS OF MEMBERS OF THE CONNECTICUT STATE MEDICAL SOCIETY

July 1, 1936 to June 30, 1937

(Continued from page 54, January, 1938)

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#### WHAT EVERY WOMAN DOESN'T KNOW — HOW TO GIVE COD LIVER OIL

Some authorities recommend that cod liver oil be given in the morning and at bedtime when the stomach is empty, while others prefer to give it after meals in order not to retard gastric secretion. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. It is most important that the mother administer the oil in a matter-of-fact manner, without apology or expression of sympathy.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silverplated spoon (particularly if the plating is worn), a glass spoon has an advantage.

On account of its higher potency in Vitamins A and D, Mead's Cod Liver Oil Fortified With Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

# Charter and By-laws

## Connecticut State Medical Society

### AN ACT REVISING THE CHARTER OF THE CONNECTICUT MEDICAL SOCIETY AND CHANGING ITS NAME TO THE CON- NECTICUT STATE MEDICAL SOCIETY

#### General Assembly

January Session, A.D., 1931.

*Be it enacted by the Senate and House of Representatives in  
General Assembly convened:*

Section 1. The charter of The Connecticut Medical Society, approved June 5, 1834, is amended to read as follows: All persons who are, at the time of the passage of this act, members of The Connecticut Medical Society and all physicians and surgeons who shall hereafter be associated with them in pursuance of the provisions of this act shall be and remain a body politic and corporate by the name of The Connecticut State Medical Society; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded, in all suits of whatever name and nature; may have a common seal and may alter the same at pleasure and may also purchase, receive, hold and convey any estate, real and personal, to an amount not exceeding one hundred thousand dollars.

Section 2. The superintendence and management of the corporation shall be vested in a board to be known as "The House of Delegates of The Connecticut State Medical Society," which board shall have power to establish officers in said corporation and prescribe the duties of the several officers and of the members of said corporation and may fix their compensation; to establish the conditions of admission to and dismissal and expulsion from said society; to lay a tax, from time to time, upon the members and to collect the same; to hold and dispose of all moneys and other property belonging to the corporation in such manner as it may deem advisable to promote the objects and interests of the society and in general to make such by-laws and regulations for the due government of the society, not repugnant to the statutes of the United States or of this state, as may be deemed necessary.

Section 3. The House of Delegates of The Connecticut State Medical Society shall be composed of, (1) the president, treasurer and secretary of the society; (2) delegates to be elected annually as hereinafter provided, by the several county medical associations in this state which heretofore have been and are affiliated with The Connecticut State Medical Society and (3) eight councilors to be elected, from time to time, as hereinafter provided.

Section 4. An annual meeting of the corporation, for the election of officers and such other business as may, from time to time, arise, shall be held during the month of May in each year and upon such day in said month as The House of Delegates shall, from time to time, prescribe.

Section 5. At a meeting to be held at least twenty days in advance of the annual meeting of the corporation

in each year, every affiliated county association shall elect a delegate or delegates to represent it in "The House of Delegates" of this society in the proportion of one delegate to each thirty-five members, or any part of that number, and the secretary of such affiliated county association shall send a list of such delegates to the secretary of this corporation at least twenty days before the date of such annual meeting.

Section 6. There shall be in "The House of Delegates," one councilor from each affiliated county medical association. The councilors holding office at the time of the passage of this act shall serve out the terms of office for which they were elected. At their annual meeting to be held in 1931, the affiliated county medical associations for the counties of Hartford, New London, Windham and Middlesex shall each elect one councilor who shall serve for two years, and at their annual meeting in 1932 the affiliated county medical associations for New Haven, Fairfield, Litchfield and Tolland counties shall each elect one councilor, who shall serve for two years. Thereafter each county, in groups as above mentioned, shall, biennially, elect a councilor to fill said office for a term of two years. Any vacancy in said office may be filled by the county association of the county in which the vacancy occurs, by election to fill the unexpired portion of the term.

Section 7. The secretary of each affiliated county medical association in this state shall, within ten days following any meeting of such association at which new members are elected, file with the secretary of the society a list of all members of such association who are at the time in good and regular standing, and thereupon all such persons shall become members of The Connecticut State Medical Society without further action.

Approved May 25, 1931. (Special Act 427, 1931.)

#### BY-LAWS

#### Chapter 1

Section 1. Name. The name and title of this organization shall be The Connecticut State Medical Society.

Section 2. Purposes of the Society. The purposes of this Society shall be to federate and bring into one compact organization the entire medical profession of the State of Connecticut, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; to enlighten and direct public opinion in regard to the great problems of State medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.



Section 3. Component Associations. Component Associations shall consist of those county medical associations which heretofore have been and now are affiliated with The Connecticut State Medical Society.

Section 4. Composition of Society. This Society shall consist of members, delegates, guests, and honorary members.

Section 5. Members. Members of this Society shall be members of the component county medical associations.

Section 6. Delegates. (1) Delegates shall be those members who are elected by the component county associations; (2) the Councilors of their respective component associations in the House of Delegates of this Society.

Section 7. Guests. Any distinguished physician not a resident of this State who is a member of his own State Association, may become a guest during any annual session on invitation of the officers of this Society and shall be accorded the privilege of participating in all the scientific work for that session.

Section 8. Honorary Members. Eminent physicians, may be elected Honorary Members by a major vote of the House of Delegates after nomination of one year, but shall not exceed three in any one year.

Honorary Members shall have all the privileges accorded by Section 7 to guests.

#### Chapter II. Membership

Section 1. The name of a physician upon the properly certified roster of members of a component association, who has paid his annual assessment, shall be prima facie evidence of membership in this Society.

New members elected to the Society by a component association at any time during the course of the fiscal year shall be assessed and shall pay the full dues for that year.

The annual tax shall be collected from all such members except the secretaries of County Medical Associations, but the taxes of any member may be remitted by vote of the House of Delegates upon recommendation of any County Medical Association.

Section 2. Any person who is under sentence of suspension or expulsion from a component association, or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of the Society, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Section 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component association of which he is a member.

#### Chapter III. House of Delegates

Section 1. The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) the President, Treasurer and Secretary of the Society; (2) Delegates elected by the component county medical associations; and (3) the Councilors.

Section 2. The House of Delegates shall meet on the first day of the annual session. It may adjourn from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the General Meetings. The order of business shall be arranged as a separate section of the programme.

Section 3. Each component association shall be entitled to send to the House of Delegates each year, one delegate for every thirty-five members, or any part of that number.

Section 4. Fifteen delegates shall constitute a quorum.

Section 5. It shall, through its officers, Council, and otherwise, give diligent attention to and foster the scientific work and spirit of the Society, and shall constantly strive to make each annual session a stepping-stone to further advancement.

Section 6. It shall consider and advise as to the material interests of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Section 7. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests in such county associations as already exist and for organizing the profession in counties where associations do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until every physician in every county in the State who can be made reputable has been brought under medical society influence.

Section 8. It shall encourage post-graduate and research work, as well as home study, and shall endeavor to have the results discussed and utilized.

Section 9. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-laws of that body.

Section 10. It shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates.

Such committees shall report to the House of Delegates, and may be present and participate in the debate on their reports.

Section 11. It shall approve all memorials and resolutions issued in the name of the Society before the same shall become effective.

Section 12. Sections and District Societies. The House of Delegates may provide for a division of the scientific work of the Society into appropriate sections, and for the organization of such Councilor District Associations as will promote the best interests of the profession, such associations to be composed exclusively of members of component county associations.

#### Chapter IV. Sessions and Meetings

Section 1. The Society shall hold an annual session, during which there shall be held daily General Meetings which shall be open to all registered members, guests and honorary members.

Section 2. The time and place for holding each annual session shall be fixed by the House of Delegates.

Section 3. Special meetings of either the Society or the House of Delegates shall be called by the President, on petition of ten (10) delegates or fifty (50) members.

Section 4. General Meetings. All registered members may attend and participate in the proceedings and discussions of the General Meetings and of the Sections. The General Meetings shall be presided over by the President or by one of the Vice Presidents, and before them shall be delivered the address of the President and the orations,

Section 5. The General Meeting may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and the public.

#### Chapter V. Officers

Section 1. The Officers of this Society shall be a President, a President-Elect, two Vice Presidents, a Secretary, a Treasurer, and eight Councilors.

Section 2. The officers, except the Councilors, shall be elected annually. At their annual meeting to be held in 1931, the affiliated county medical associations for the counties of Hartford, New London, Windham and Middlesex shall each elect one Councilor who shall serve for two years, and at their annual meeting in 1932 the affiliated county medical associations for New Haven, Fairfield, Litchfield and Tolland counties shall each elect one Councilor, who shall serve for two years. Thereafter each county, in groups as above mentioned, shall, biennially, elect a Councilor to fill said office for a term of two years. Any vacancy in said office may be filled by the county association of the county in which the vacancy occurs, by election to fill the unexpired portion of the term.

Section 3. All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect.

Section 4. The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the General Session, and no person shall be elected to any such office who has not been a member of the Society for the past two years.

#### Chapter VI. Duties of Officers

Section 1. The President shall preside at all meetings of the Society and of the House of Delegates; shall appoint all committees not otherwise provided for; shall deliver an annual address at such times as may be arranged, and perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office and, as far as practicable, shall visit by appointment the various sections of the State and assist the Councilors in building up the county associations and in making their work more practical and useful.

Section 2. At the Annual Meeting in 1937, and at each Annual Meeting thereafter, the Council shall nominate to the House of Delegates, a President-Elect who shall become the President of the Society at the conclusion of the Annual Meeting of the next following year without further formality. The duties of the President-Elect shall be to aid and assist the President in any way designated by him, to familiarize himself with the activities of the Society, and to attend the meetings of the Council and take part in its deliberations but without vote.

Section 3. The Vice Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation, or removal, the Council shall select one of the Vice Presidents to succeed him.

Section 4. The Treasurer shall give bond in the sum of \$5,000, the manner of bonding to be left to the Council. He shall demand and receive all funds due the Society, together with the bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary; he shall subject

his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his doings and of the state of the funds in his hands.

Section 5. The Secretary shall attend the General Meetings of the Society and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record books and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates of the annual sessions. He shall, with the cooperation of the secretaries of the component associations, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county association, and, on request, shall transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county associations and in the extension of the power and usefulness of this Society. He shall conduct House of Delegates. He shall supply each component association with the necessary blanks for making their annual reports. Acting with the Committee on Scientific Work, he shall prepare and issue all programmes. The amount of his salary shall be fixed by the Council.

#### Chapter VII. Council

Section 1. The Council shall consist of one Councilor from each county and the President, Secretary and Treasurer ex-officio. It shall be the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

The Board of Councilors shall appoint from its own members two members who, with the Treasurer of the Society, shall constitute a sub-committee to be designated a Committee on the Permanent Funds, whose duty it shall be to advise on the investment of such funds as the Society may have or receive by bequest or donation, according to the laws of the State of Connecticut governing trust funds. This committee shall, through the Chairman of the Council, recommend to the House of Delegates the disposition to be made of the permanent funds, both principal and income.

Section 2. The Council shall meet daily during the session, and at such other times as necessity may require, subject to the call of the chairman or on petition of three Councilors. It shall meet on the last day of the annual session of the Society to organize and outline work for the ensuing year. It shall elect a chairman and a clerk, who, in the absence of the Secretary of the Society, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates.

Section 3. The Board of Councilors shall constitute the nominating committee of the Society. They shall report as such to the House of Delegates on the first day of the general session. After the report has been submitted an opportunity shall be given for other nominations to be made.

Section 4. Each Councilor shall be organizer, peace-maker, and censor for his district. He shall visit the counties in his district at least once a year for the purpose



of organizing component associations where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county associations and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates.

Section 5. The Council shall be the Board of Censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the component associations, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or component associations on which an appeal is taken from the decision of an individual Councilor, and its decision in all such matters shall be final.

Section 6. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Society, and shall have authority to appoint an editor and such assistants as it deems necessary. All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Society. As the Finance Committee, it shall annually audit the accounts of the Treasurer and Secretary and other agents of this Society, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of this Society during the year, and the amount of all other property belonging to the Society under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary or the Treasurer, the Council shall fill the vacancy until the next annual election.

Section 7. The Council shall serve as a Board of Review for cases of claimed malpractice as may be referred to it by any component County Association's Committee on Medical Ethics and Deportment.

#### Chapter VIII. Committees

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Medical Examination and Medical Education.

A Committee on Honorary Members and Degrees.

A Committee on Arrangements, and such other committees as may be necessary. Such committees shall be elected by the House of Delegates unless otherwise provided.

Section 2. The Committee on Scientific Work shall consist of three members, of which the Secretary shall be one, and shall determine the character and scope of the scientific proceedings of the Society for each session, subject to the instructions of the House of Delegates. Fifteen days previous to each annual session it shall prepare and issue a programme announcing the order in which papers, discussions and other business shall be presented.

Section 3. The Committee on Public Policy and Legislation shall consist of one member from each compo-

nent association, and the President and Secretary and the Committee on National Legislation. Under the direction of the House of Delegates it shall represent the Society in securing and enforcing legislation in the interest of the public health and scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, state, and national affairs and elections.

Section 4. The Committee on Medical Examination and Medical Education shall consist of five members, who shall be appointed in accordance with Section 4717 of the general statutes of the State of Connecticut. The committee shall conduct the medical examination of candidates for certificates of qualifications for license to practice medicine in the State in accord with the requirements of the Medical Practice Act. It shall annually present a written report to the House of Delegates. The committee shall also be a committee on medical education and shall cooperate with the council of education of the American Medical Association in the effort to elevate the standard of medical education in the United States.

Section 5. The Committee on Honorary Members and Degrees may present annually to the House of Delegates the names of not more than three eminent physicians, as candidates for honorary membership in this Society. Such candidates may be elected honorary members in accordance with the provisions of Chap. I, Section 8, of the By-laws.

Section 6. The Committee on Arrangements shall be appointed by the component association in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Society and of the House of Delegates, and of their respective committees. Its chairman shall report an outline of the arrangements to the Secretary for publication in the programme, and shall make additional announcements during the session as occasion may require.

#### Chapter IX. Funds and Expenses

Funds shall be raised by an equal per capita assessment on each component association. The amount of the annual assessment per member shall be fixed by the House of Delegates.

Funds may also be raised by voluntary contributions, for the Society's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be referred to the Finance Committee before action is taken thereon.

#### Chapter X. Referendum

Section 1. A General Meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Society, who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

Section 2. The House of Delegates may, by a two-thirds vote of its members present, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

### Chapter XI. County Associations

Section 1. All County Associations now in affiliation with the Connecticut State Medical Society shall be component parts of this Society.

Section 2. Each County Association shall judge of the qualification of its members, but as such associations are the only portals to this Society and to the American Medical Association, all reputable and legally registered physicians, except those who practice or claim to practice or lend support to any exclusive or irregular system of medicine, shall be entitled to membership.

No physician shall be admitted to or retain membership in a County Medical Association after the expiration of his present contract who has agreed to furnish medical services to any organization or union for a stipulated sum per member, or for other consideration than the regular local fee for such services.

Section 3. Any County Medical Association may suspend or expel any member who is guilty of improper or unprofessional conduct, by a two-thirds vote of the members present and voting at any regular meeting, provided due notice has been given on the programme of said meeting at least ten days before its session. When from any cause a member of the Connecticut State Medical Society ceases to be a member of one of the component county medical associations, his membership in the Connecticut State Medical Society shall terminate, but any physician who may feel aggrieved by the action of the association of his county in refusing him membership or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final.

Section 4. In hearing appeals the Council may admit oral or written evidence as in its judgment will be best and to most fairly present the facts, but in case of every appeal, both as a Board and as individual councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Section 5. When a member of a component association in this state or any component association of the American Medical Association removes to another county in this state or takes up his residence within this state and presents a certificate signed by the president or secretary of the component association stating that he is a member in good standing and evidence that he is legally qualified to practice medicine in the State of Connecticut, he may, upon recommendation of the Committee on Credentials, be elected to membership in a component association of this Society by a two-thirds vote of the members voting.

When a physician applies for membership, or when an application is made to be received on transfer from another state, the secretary of the component association shall forward the applicant's name and address to the biographic department of the American Medical Association for such information as may be on file relative to his record. Printed forms for this purpose will be furnished by the Secretary of this Society. After the adoption of this By-law, no

new member shall be enrolled or accepted on transfer from another state until this provision shall have been carried into effect.

Section 6. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the association in whose jurisdiction he resides.

Section 7. Each component association shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral, and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the county.

Section 8. At some meeting in advance of the annual session of this Society, each county association shall elect a delegate or delegates to represent it in the House of Delegates of this Society in the proportion of one delegate to each thirty-five members, or any part of that number, and the Secretary of the Association shall send a list of such delegates to the Secretary of this Society at least twenty days before the annual session.

In the case of death, illness or disability of a delegate, the President of the County Association in which the vacancy occurs shall appoint a substitute delegate, with full power to represent his county during the delegate's disability, or until the successor of such appointee is elected at the next meeting of the County Medical Association. Any vacancy in the office of Councilor may be filled by the County Association of the county in which the vacancy occurs, by election to fill the unexpired portion of the term.

Section 9. The Secretary of each component association shall keep a roster of its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of registration in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Section 10. The fiscal year of the Society shall terminate on December 31st of each year.

On or before December 1st of each year the Secretary of each component association shall make a report to the Treasurer of the Society on a blank provided by the Treasurer for that purpose, stating, 1st, the number of members from his county and the number exempt; 2d, the total amount collected on the tax of that fiscal year; the amount collected during the year on taxes in arrears; the amount of taxes still in arrears for one year previous; the amount in arrears for two years previous, together with a check to cover the above-mentioned collections.

The bills for the tax laid at the annual meeting shall be sent to each member by the respective county clerks on the first day of January of each year.

The clerk of each component association shall forward

*(Continued on Page 16 of Advertisements)*



# Opportunities Available for Physicians of Connecticut

in the Yale University School of Medicine and Affiliated Institutions

Any physician of good standing in the community may, on application to the head of a department in the Yale University School of Medicine, obtain permission to attend clinics, lectures, conferences, or ward rounds; or to do special work in association with the laboratories connected with the various departments. Internships, assistant residencies, and residencies in the New Haven Hospital are available to properly qualified persons. Some opportunities are listed below:

Ward rounds in the New Haven Hospital, clinics, and conferences are held by the clinical departments as follows:

**MEDICINE:** rounds daily at 10:00 A.M. on each of the three wards and in the Metabolic Section; clinic Thursdays at 12:00 M.

**SURGERY:** General Surgery program. Wednesdays: case conferences 9:00 to 10:15 A.M.; clinic 12:00 M. to 1:00 P.M.; X-ray conferences for topics of diagnosis and therapy 4:00 to 5:00 P.M.; Tumor Clinic conferences Tuesdays at 2:00 P.M.; Ophthalmology conference with Department of Pathology second and fourth Thursdays at 4:00 P.M.; Orthopedic conference with Section of Radiology daily at 11:00 A.M.; Orthopedic Seminar, Tuesdays at 8:00 P.M.; Otolaryngology: clinical presentation of unusual cases at 11:00 A.M. Wednesdays, Otolaryngological clinic; Urological Section program Mondays: grand rounds at 8:30 A.M.; conferences with Section of Radiology at 9:30 A.M. and, on alternate Mondays, a pathological conference at 10:30 A.M.; Urological Surgery, Tuesdays and Fridays beginning at 8:30 A.M.

**PEDIATRICS:** Ward rounds daily by the junior staff at 9:00 A.M., and by the senior staff at 11:00 A.M.; clinic, Mondays at 12:00 M.; on the first and third Wednesdays of each month at 12:00 M., conference for staff and other physicians at which cases and problems are discussed.

**OBSTETRICS AND GYNECOLOGY:** Ward daily at 9:00 A.M.; conference clinic Tuesdays, at 12:00 M.

**PSYCHIATRY:** Ward rounds daily at 9:00 A.M.; grand rounds Wednesdays at 10:30 A.M.; clinic Fridays at 12:00 M.

**PATHOLOGY:** Conferences Clinical Medicine-Pathology Mondays and Fridays at 4:30 P.M., Surgical Pathology Wednesdays at 11:00 A.M., Ophthalmology-Pathology second and fourth Thursdays at 4:00 P.M.

**PUBLIC HEALTH:** Seminars Tuesdays and Fridays at 5:00 P.M.

**THE CLINIC OF CHILD DEVELOPMENT:** A series of lectures and demonstrations (Pediatrics 120) dealing with mental growth and developmental diagnosis Wednesdays at 4:30 P.M.

**WILLIAM WIRT WINCHESTER HOSPITAL:** Ward rounds Wednesdays and Fridays, 9:00 A.M. to 12:00 M.; case conferences Fridays, 11:15 A.M. to 12:30 P.M.

**LECTURES:** Class lectures for medical students, as well as the other class exercises, are open to all interested.

**GRADUATE WORK.** Properly qualified persons with B.A. or B.S. and M.D. degrees, who have served internships and completed the work prescribed for an assistant resident, will be considered by the Graduate School as prospective candidates for the degree of Doctor of Philosophy, which usually requires three years of resident study and the completion of a thesis. The requirements for the degrees of Master of Public Health and

Doctor of Public Health are described in the catalogue of the School of Medicine.

## PRECLINICAL

**LECTURES.** Classroom lectures and laboratory courses are open to all interested. Fees are charged for laboratory courses.

**SEMINARS** are held weekly in Anatomy, Pathology, Pharmacology, Physiology, Physiological Chemistry, Psychobiology and Immunology.

**GRADUATE WORK.** Graduate work in these subjects leads to the degree of Doctor of Philosophy. This requires three full years of graduate study and research, and candidates must have completed a four years' course of distinction in a college of high standing.

## GENERAL

**THE LIBRARY** in Sterling Hall of Medicine. Open on weekdays, 8:30 A.M. to 9:55 P.M., and on Sundays, 2:00 to 9:55 P.M.; vacation hours, on weekdays, except Saturdays, 8:30 A.M. to 5:00 P.M.; on Saturdays, 8:30 A.M. to 1:00 P.M. Departmental collections supplement the general facilities.

**YALE MEDICAL SOCIETY.** Meets monthly from October to May on the second Wednesday at 8:30 P.M. Papers by members of the staff and by visiting lecturers. The programs are published in the *Yale University Bulletin*.

Other lectures by visiting scientists under the auspices of the Society are announced in the *Bulletin* and are open to all interested.

**NEUROLOGICAL STUDY UNIT.** Meets every two weeks from October to May at 4:30 P.M. in the Auditorium, Farnam Memorial Building: second Tuesdays for the presentation of neurological reports and discussions of data; fourth Tuesdays clinical session for the presentation of cases. In so far as possible programs will be published in the *Bulletin*.

**REGISTRY OF BRAIN TUMORS.** The collection of some two thousand brain tumors made by Dr. Cushing has been installed in the Department of Pathology, Brady Memorial Laboratory. It is hoped that this collection will be added to from many sources. Anyone who may feel inclined to send specimens for diagnosis or may seek information of other sorts is welcome to do so and should communicate with Dr. Louise Eisenhardt.

**THE CLUBROOM** of Sterling Hall of Medicine offers opportunity for informal meetings daily from 4:00 to 6:00 P.M. during the fall and winter terms.

**NOTABLE EXHIBITIONS,** arranged in the Sterling Memorial Library throughout the year, are open to the public (see the *Bulletin*), besides other general University activities, many of which are free.

**CATALOGUES** of the Yale University School of Medicine or the Yale University Graduate School may be obtained from the Registrars of the respective Schools or from the Secretary of Yale University.

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**CHARTER AND BY-LAWS** (*Concluded from Page 108*)  
its roster of officers and list of members and of non-affiliated physicians to the Secretary and Treasurer of this Society each year within five days after the annual session of his county association.

Section 11. The several county medical associations shall have power to adjourn; to call special meetings, as they shall deem expedient; and to adopt such by-laws as they find desirable, not contrary to the laws of this State or the charter and by-laws of The Connecticut State Medical Society.

## **Chapter XII. Miscellaneous**

Section 1. No address or paper before this Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject except by unanimous consent.

Section 2. All papers read before the Society or any of the Sections shall become its property. Each paper shall be deposited with the Secretary before reading. No paper shall be read before this Society which has been previously published or read before any other organization.

Section 3. The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with the charter and by-laws.

Section 4. The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

## **Chapter XIII. Amendments**

These By-laws may be amended at any annual session

by a majority vote of all delegates present at that session, after the amendment has been laid on the table until the next annual session. If however, the proposed alterations has been published in the notice of the session, it may be acted upon after it has laid on the table one day.

—☆☆—

## **SPECIAL MEETING OF HOUSE OF DELEGATES**

As we go to press the result of the special meeting of the House of Delegates called to discuss the "Principles and Proposals" is before us. There was no heated discussion but in a quiet and thoughtful manner the House voted to instruct the Council to appoint a committee of twenty to study the whole problem of medical care and to prepare a platform of principles for presentation at the annual meeting of the Society in May. The House of Delegates is to be congratulated on this action. Following are the names of the committee appointed by the Council:

Fairfield County—D. C. Brown, Danbury  
D. P. Griffin, Bridgeport  
D. C. Patterson, Bridgeport  
J. L. Vickers, Greenwich

(Continued on Page 20 of the Advertisements)

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	1 Ounce of Cocomalt adds	1 Glass of Milk (8 Liquid Ozs.) contains	Thus, 1 Glass of Cocomalt and milk contains
IRON	0.005 GRAM	*TRACE	0.005 GRAM
VITAMIN D	134 U.S.P. UNITS	*SMALL AMOUNT; VARIABLE	134 U.S.P. UNITS
CALCIUM	0.15 GRAM	0.24 GRAM	0.39 GRAM
PHOSPHORUS	0.16 "	0.17 "	0.33 "
PROTEIN	4.00 GRAMS	7.92 GRAMS	11.92 GRAMS
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CARBOHYDRATES	21.50 "	10.97 "	32.47 "

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*\*Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245  
Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154  
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Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3  
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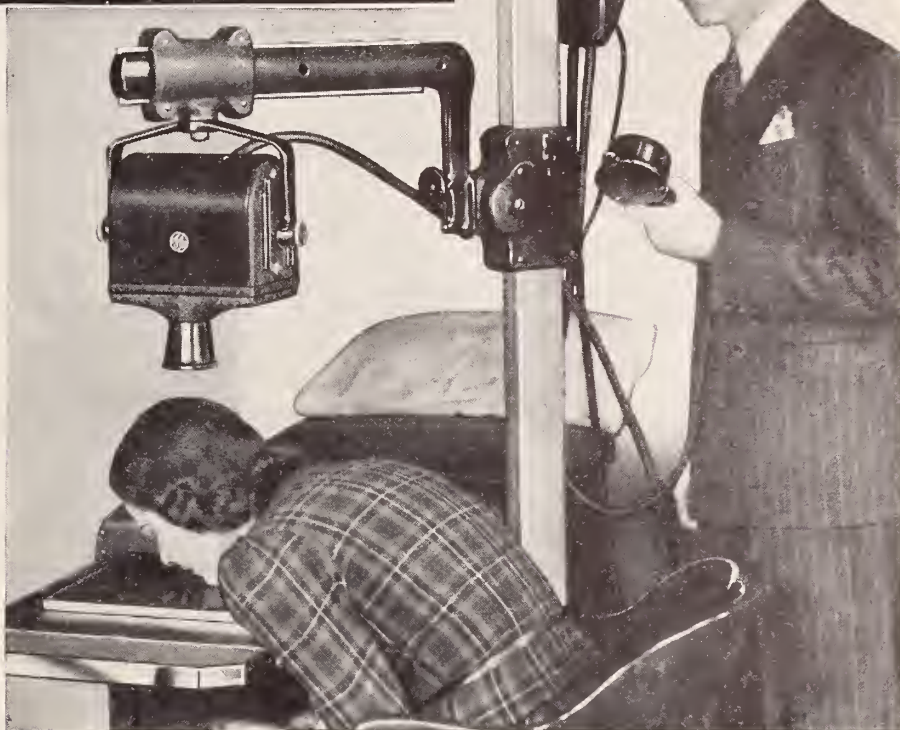


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PHILADELPHIA, PA.  
Chief, Nasal and Throat Departments,  
St. Vincent's Hospital.

Reprinted from CLINICAL MEDICINE AND SURGERY, Vol. 1,  
January, 1937, pp. 25-27.

### BENZEDRINE IN PARANASAL SINUSITIS (A Study of 306 Cases)

By J. ALLAN BERTOLET, M.D.  
Philadelphia, Pa.

Some five years ago I made the first report on the clinical use of Benzedrine (benzyl methylcarbinamine), which was, at that time, a new vasoconstrictor of proved potency and with the advantages of volatility.

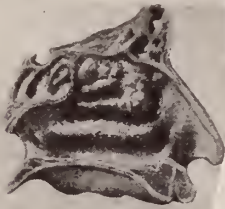


Fig. 1.—A sagittal section of a normal nasal cavity.

characteristic of volatility. In conjunction with methods of treatment, beneficial results were obtained in 122 cases presenting various types of complications.

Since that report, studies by other investigators have confirmed these findings and demonstrated further the clinical efficacy of the drug.

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### BENZEDRINE VAPOR IN CHILDREN

By JOSEPH A. SCARANO, M.D., AND  
JOHN F. COPPOLINO, M.D.  
Philadelphia.

The disadvantages of the usual methods employed in local treatment of upper respiratory infections in infants and children have been noted. The strenuous subject of sprays, tampons or "drops" is often so marked that effective treatment is impossible. Moreover, undesirable secondary reactions often result from the use of harsh astringents; and children with pneumonia may result from oil inhalants aspirated into the lungs. It seemed probable, therefore, that a volatile, non-irritative substance administered by inhalation would be more successful in the treatment of these infections. Benzedrine (benzyl methylcarbinamine) is a more convenient and effective than liquids for pediatric use. The vapor would penetrate the nasal cavity more effectively than liquids.

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A Comparative Study

JOSEPH A. SCARANO, M.D.  
Philadelphia, Pa.

Reprinted from the New England Journal of Medicine,  
Vol. 29, No. 21, pp. 1042-1045, Nov. 22, 1933

### THE USE OF BENZYL METHYL CARBINAMINE CARBONATE IN THE TREATMENT OF RHINITIS\*

BY HARRY V. BYRNE, M.D.

A NEW drug for the symptomatic treatment of rhinitis has recently been developed. This preparation is a volatile carbonate, benzyl-methyl-carbinamine. The compound is related structurally to both ephedrine and epinephrine with somewhat similar pharmacological and physiological properties. Hartung and Munch, and Piness et al. report a marked rise in the blood pressure following the administration of the drug. The latter investigators state that this was found coincident to the rise in blood pressure of the secretions of the nasal mucosa.

Reprinted from the Archives of Otolaryngology,  
May 1935, Vol. 21, pp. 585-593.  
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CHARLES SEYMOUR  
PRESIDENT, YALE UNIVERSITY

*A MESSAGE FROM  
THE PRESIDENT of YALE UNIVERSITY*

TO READERS OF THE JOURNAL OF THE  
CONNECTICUT STATE MEDICAL SOCIETY:

I am happy to be given the privilege of extending my greetings to the physicians of Connecticut through the Journal of the Connecticut State Medical Society. By long tradition and by close interest, Yale University is bound up with the Medical Society. We look back with gratitude to the days when members of that Society, with vision and imagination, established the medical department of Yale; and with equal gratitude to the early administration of the Yale medical department by a committee from the Society. We treasure deeply the co-operation between the Yale School of Medicine of today and the physicians of the State. Only through co-operation of this kind can the University fulfill its mission of service to the public welfare of the State. In a larger sense the ultimate health of the State will be dependent upon the close and constant association of the State Society and the universities.

CHARLES SEYMOUR



# JOURNAL of The Connecticut State Medical Society

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No. 3

## Leukemia

Some Evidence That Leukemia May Be Allied to New Growth\*†

THEODORE S. EVANS, M.D., New Haven

Pathologists have held for years that leukemia is a form of new growth originating in some single portion of the marrow of one of the bones. They are so convinced of this fact that certain of them classify leukemia under the heading of new growth. Thus McCallum<sup>12</sup> classified this whole group under the terms that follow:

A. Hyperplasia of lymphoid tissue.

1. With leukemic blood. Under this heading he placed acute and chronic lymphogenous leukemia, leucosarcoma and chloroma.

2. Without leukemic blood. Here he included "pseudoleukemia," aleukemic leukemia, lymphosarcoma and status lymphaticus.

B. Hyperplasia of myeloid tissue.

1. With leukemic blood. This group included acute and chronic myelogenous leukemia and myeloid chloroma.

2. Without leukemic blood — multiple myeloma, myelosarcoma.

Mallory<sup>11</sup> referred to the whole group as "tumors of mesenchymal origin" and differentiated between "lymphoblastomas and myelo-

blastomas." Boyd<sup>2</sup> described them as being "disorderly, non-altruistic . . . rightly called neoplasms."

C. Since these classifications were made a third type of leukemia has been described and new classification must be added to this classification to include monocytic leukemia. This might be described pathologically as monoblastoma.

The feeling of pathologists is that leukemia is a new growth of the bone marrow and the blood: that it starts as a tumor of one small individual portion of the bone marrow and metastasises very rapidly by the blood and lymph channels. It early involves the spleen, liver, lymphnodes and intestinal lymph tissue. In other words, they argue that lymphoblastoma or myeloblastoma, or now monoblastoma, is the initial stage of leukemia. Nor is their idea entirely unsupported by clinicians as Banti, Kato<sup>5</sup> and Brunschwig and others. Cooke<sup>3</sup> even raises the question as to whether the lymph nodes act as filters for these cells and are therefore involved very early.

\*From the Medical Service at Grace Hospital, New Haven, Conn.

†Read before the Association of Connecticut Tumor Clinics, Grace Hospital, New Haven, October 31, 1937.

In support of this point of view are adduced the following clinical and laboratory findings:

1. The tumor is frequently in evidence for a long time before the development of the blood picture. This fact was evident in two of the cases later cited.

2. Mitotic figures (dividing blood cells) are seen in the lymph nodes, the bone marrow and rarely in the blood. One of our cases, H.J., illustrates this finding of mitotic figures in the lymph nodes. A second case, W.H., also was found to have mitotic figures in the spleen, liver, kidney, lungs, adrenals, gastro-intestinal tract, lymph nodes, bone marrow and in the circulating blood.

3. Tissues are definitely invaded by these cells. Lantern slides of W.H. and autopsy material demonstrate rapid growth in nearly all tissues of the body. The lymph nodes of H.J. gave evidence of marked invasion through the capsule of leukemic cells.

4. Sensitivity of these cells to X-ray is very well known and treatment by X-ray and the new "shatter" radium type of treatment is frequently very effective in controlling the mass of cells in the liver, spleen, and lymph nodes.

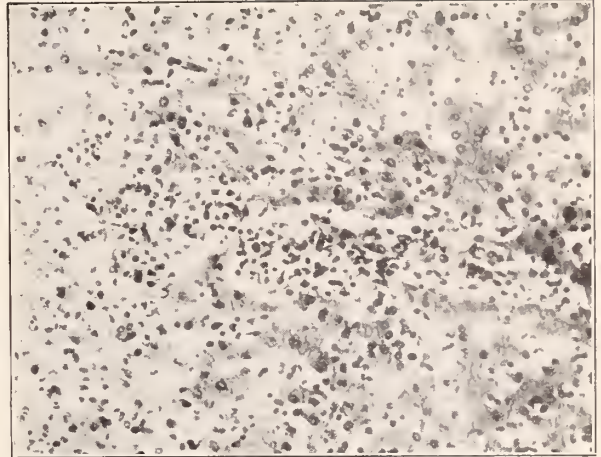
5. The tendency to skin and bone metastases is very striking. In the cases of G.P. and W.H. are demonstrated the osteolytic type in the bones very similar to myeloma.

We have selected certain cases of leukemia because each demonstrates one or more of the above five findings. For simplicity we may accept Forkner's<sup>6</sup> recent classification.

1. Neutrophilic leukemia. 2. Lymphocytic. 3. Monocytic leukemia.

**CASE I.** H.J., Neutrophilic leukemia. A colored housewife of 24 years had been well until three weeks before admission to Grace Hospital. She had sudden severe pain in the chest, together with dyspnea at that time. During the three weeks period before admission, the pain had gradually disappeared, but the dyspnea had become much worse and she also had begun to cough and spit up bloody mucous.

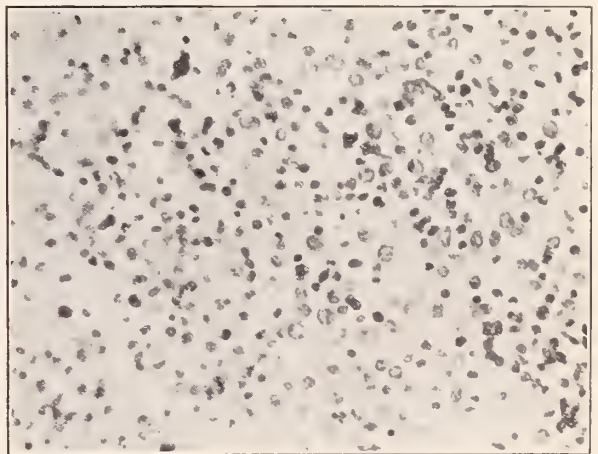
During this period she had also noticed painless lymph nodes in the neck. On physical examination she was found to have enlargement of the lymph nodes throughout the body, those in the neck being particularly large and firm. There was evidence also of massive effusion in the left chest. The spleen and liver were not felt.



**Fig. 1.** Case 4. Liver x 200. Note: 1. Tremendous number of cells in sinuses; 2. Darkstaining nuclei; 3. Invasion of tissue.

The rest of the examination does not pertain to our problem.

X-ray of the chest on September 16 was reported as follows: "There was marked increase in density in the left lung except for an oval shadow between the second and fifth ribs. Mediastinum was displaced toward the right . . ." A second X-ray of the chest after the removal of 1000 c.c. of bloody fluid gave a picture practically the same. A cervical lymph node removed on September 20, five days after admission was described as follows: "The normal architecture of the lymph node has been entirely destroyed by cells resembling those of the germinal center. In these cells are observed many mitotic figures.



**Fig. 2.** Case 4. Vertebral Marrow x 200. Note: 1. Preponderance of type cell; 2. Pyknosis.



## H.J.

Date	Hg.	R.B.C.	W.B.C.	Polys.	My-Cyte	My-Blast	S. Lym	Lyn pho.	Doubt.
9-15	80	4.7	8,000	78			16		6
9-20	80	4.5	12,000	79			12		9
10-2	74	4.4	30,000	78			10		12
10-6	82	4.9	36,000	24			64		14
10-17			33,000	15			70		15
10-18			47,000	6	46	30	18		
10-21			45,000	13	18	46	23		
10-25			21,000	12	26	47	15		

The apparent discrepancies between the early and the late differential cell counts are due to the failure to distinguish the early granular cells in the early counts and their proper classification in the late counts.

These small round lymphoblasts have infiltrated the capsule . . . I consider this to indicate a rapidly growing lymphoblastoma." Since the blood picture at this time was not remarkable, a diagnosis of lymphosarcoma involving the peripheral nodes and those of the mediastinum was made.

She was discharged but returned shortly after. On this admission she ran a fever. She bled from the mouth, anus and vagina and her red blood count and hemoglobin fell rapidly. The white count rose rapidly. At first the predominating cells were thought to be lymphocytes, but as forms of different ages were observed by supra vital and other special techniques, it became evident that the predominant cell was a very young one of the granular series. A diagnosis of myelocytic leukemia was made. She died after ten weeks of illness.

This case then illustrates three of the findings

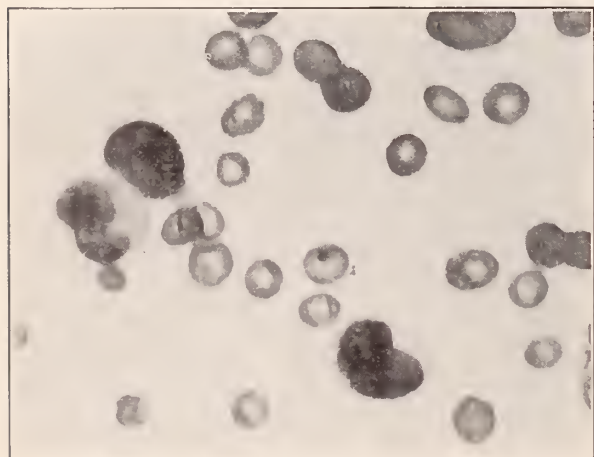


Fig. 3. Case 4. The Blood x 1000. Note: 1. Nucleoli; 2. Changes in size, shape and staining of red cells. Crenated red cells.

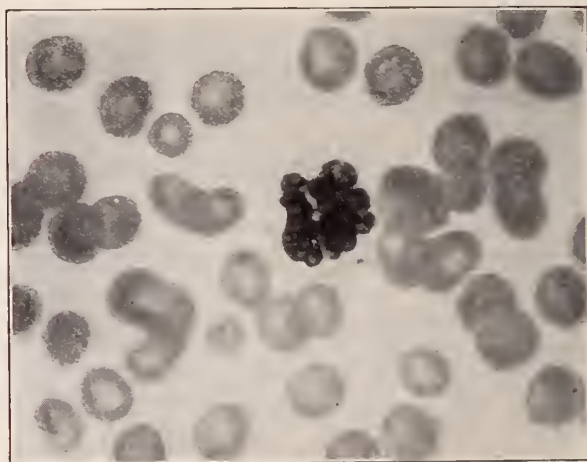


Fig. 4. Case 4. The Blood x 1500. Note: 1. Mitosis in monocyte; 2. Nucleus multilobulated; 3. Cytoplasm disorganized but still recognizable.

quoted as evidence of the relation between leukemia and neoplasm, i.e.,

1. The presence of tumor before the blood picture of leukemia develops.
2. Mitotic figures in the lymph nodes.
3. The unruly growth of cells in the lymph nodes.

It illustrates the extreme difficulty of classification of immature cells.

CASE II. A.S., Neutrophilic leukemia. A 49 year old sailor complained of dyspnea and cough. He also had severe pain in the left lower chest or hypo-chondrium. These symptoms had been present about two weeks before admission to Grace Hospital on October 14, 1935. Thirteen years previously he had rheumatic fever.

Physical examination. The heart was large; a systolic thrill and murmur were noted. A short diastolic murmur was also heard. "Asthmatic rales" were heard in the lungs. Blood



A.S.									
Date	HG.	R.B.C.	W.B.C.	Polys	My-Cyte	My-Blast	S. Lym	Ly-Blast	Doubt.
10-14	71	4.4	23,000	36			34		30
10-18			8,000	41			24		35
10-21			32,000	43	28		38		
10-26			18,000	47	12	8	33		
10-26	Peroxidase test: 60-70% of cells are positive								
10-28			42,000	64	10	13	13		
11-2			105,000						

count at this time was not unusual. He was considered to be suffering from rheumatic heart disease. X-ray of the chest was reported as follows: "There is a large globular-shaped heart. The trachea has been pushed to the right by some extrinsic pressure."

Four days after admission he suddenly started a febrile course of severe grade. Lymph nodes became large and tender. The liver and spleen were palpated shortly after. The white blood count rose rapidly. Many neutrophil myelocytes were found. He died after three weeks in the hospital.

This case also illustrates the presence of a prodromal period before the development of the leukemia picture, but with the presence of mediastinal lymph nodes.

CASE III. G.P., Lymphocytic leukemia. At the age of three this child was observed at the New Haven Hospital during the course of a right upper lobar pneumonia. At that time his laboratory findings were not unusual. His white count was 16,000, polys 60%.

September 18, 1935 when the boy was six

years old, he was again admitted to New Haven Hospital complaining of cough and nose cold. The lymph nodes in his neck were palpated. The edge of the liver was felt on one examination. Again laboratory work was not very significant. The white blood count was 5,000. Polynuclears 22%. Lymphocytes 76%. He was discharged against advice and was admitted to Grace Hospital nearly two months later. During this period he complained of fever, weakness, pain in the joints and a skin eruption (purpura).

On physical examination a pale, weak, undernourished child was seen. The mucous membranes were pale, petechial hemorrhages and purpuric spots were seen in large numbers. The nodes in the neck were large. A palpable thrill and both diastolic and systolic murmurs were noted in the heart. Gallop rhythm was present. Both liver and spleen were large. In spite of one transfusion and X-ray treatments, the child died twelve days after admission.

Aside from the blood examination the only interesting laboratory finding was a very positive heterophil test. The X-ray of the left

G.P.									
Date	Hg.	R.B.C.	W.B.C.	Polys	My-Cyte	My-Blast	S. Lym.	Ly-Blast	Doubt.
1932									
5-22	74	4.	15,000	55			35	2	8
5-26	70	4.9	16,000	60			34		6
1935									
9-18	92	4.9	5,700	23			74		3
9-19			5,200	32			67		1
9-20			4,100	22			76		5
9-21			4,700	51			41		5
9-22			5,500	22			76		2
9-24	75	4.	5,400	57			41		2
Discharged against advice									
11-10	19	1.3	29,000	8			62	30	
11-11	27	1.4	16,000	6			72	22	
11-14	36	2.	10,000	4			73	23	
11-16	41	3.	13,000	4			66	30	
11-23	17	1.	22,000	2			72	26	

humerus and glenoid cavity showed "punched out" areas of osteolysis. Another similar area was seen in the eighth rib on the right side.

This case of the lymphocytic type illustrates again the prodromal period with enlargement of lymph nodes in the neck and enlargement of the liver, but without a leukemic blood picture. It also illustrates the presence of osteolytic lesions very similar to those seen in multiple myeloma and other known new growths.

**CASE IV.** W.H., Monocytic leukemia. A 56 year old white farmer was admitted to Grace Hospital because of injury to the trunk and right foot. One month before admission he had reported to the New Haven Hospital because of a superficial ulcer of the thigh. There a tentative diagnosis of atypical leukemia was made. The white blood count at that time was 8,000 of which 7% were neutrophils, 31% lymphocytes and 62% doubtful cells.

Physical examination was negative except for ulcer of the right thigh. He went home where he worked for one month. The ulcer healed but the man was injured by a cow and sustained an infected wound of the left ankle and severe injuries to the trunk particularly of the ribs in the region of the spleen. Physical examination at this time revealed an emaciated man with many purpuric lesions of the skin. A suppurating wound of the left ankle was seen. The cervical lymph nodes were large, but the others were not palpated. The liver was easily palpable, but the spleen was not felt. He ran a febrile and rapidly fatal course dying nine days after admission. Just before death the spleen became palpable.

The record of the blood counts follows:

#### W.H.

Date	Hg.	R.B.C.	W.B.C.	Polys.	S. Lymph	Monocytes	Monoblasts
7-5	90	3.7	8,000	7	31	62% doubtful cells	
8-3	75	4.4	8,000	0	64	36% doubtful cells	
8-4			23,000	0	10	90% many blasts	
8-7			61,000	2	8	90% many blasts	
8-8			70,000	2	13	85% nearly all blasts	
8-9			88,000	3	8	89% blasts and adults	
8-10			188,000	1	9	90% blasts and adults	
8-11			265,000	2	8	90% nearly all adults	
8-12			328,000	0	8	92% many adult cells	

The monocytes were perfectly typical in every way with reniform nucleus, homogeneous cytoplasm, azure granules, etc. A complete necropsy was performed but only findings relevant to our subject will be reported here.

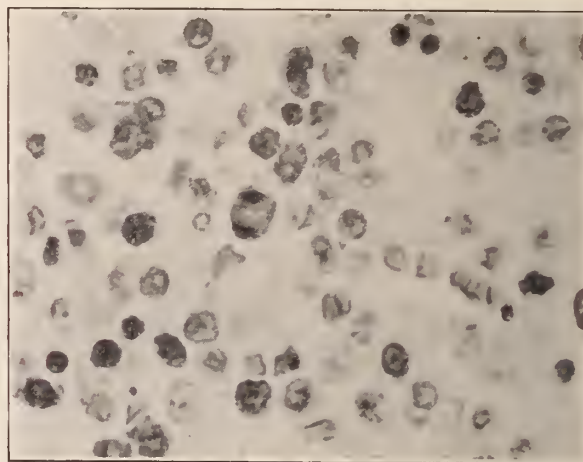


Fig. 5. Case 4. Sternal Marrow x 1000. Note: 1. Preponderance of type cell; 2. Pyknosis; 3. Mitosis of cell at center of photograph.

All the lymph nodes were large. Their normal architecture was obliterated by cells of the monocytic series. The same picture was seen in the spleen and liver. There was marked decrease in the fat of the bone marrow and the usual cytology was replaced by infiltration with monocytes and monoblasts. Very few cells of the myelocytic and lymphocytic series were encountered. Infiltration of the tissues of the heart, lungs, kidneys, adrenals and gastrointestinal tract by monocytes and monoblasts was striking. Many mitotic figures were seen in the various organs including the blood.

This case illustrates 1, the prodromal period before the dramatic course began, 2, the invasion of nearly all tissues of the body by "wildly" growing cells, 3, mitotic figures were very fre-

quent, 4, bone metastasis was observed.

There is no type of leukemia which suggests more closely possible association with new growth than the cases of monocytic leukemia of which W.H. is an example. The cells like





Fig. 6. Case 4. Monocytic Leukemia. Note area of osteolysis in rib.

lymphocytes are capable of individual motion by the use of pseudopodia. Dividing cells are seen in almost every tissue of the body in many cases as they were in W.H. In several instances we have noted cells dividing in the circulating blood. The invasion of all tissues is extremely disorderly. The cells apparently have no respect at all for capsules or other delineating structures. Metastases are also seen in this group.

In making this study we were struck by the difficulty of classifying cells at early ages. The question was continually arising: How can a blood picture of granular preponderance early in the course of the disease later veer to the non-granular series? By dint of many errors and much hard work and by the use of the supra vital technique, study of the entire course of one of these cases will eventually result in its proper classification.

We are even more convinced after reading the literature and noting both the errors in diagnosis and the expressed difficulty of others in making the differentiation that the case must be followed until all developmental steps to the maturing process are seen.

Another pertinent question arose in this work. How frequent is the combination of lymphosarcoma and later leukemia? In 1934 Cooke<sup>3</sup> re-

ported the results of a study of the literature in which he found 74 cases of lymphosarcoma followed by leukemia. He reported 9 new cases which he had seen during a 6 year period. This total of 83 cases was observed from the time when Ehrlich (1862) reported the first case until 1933 when Cooke's cases were reported. In 1905 Sternberg<sup>15</sup> gave to this syndrome the name "leuko-sarcoma." The combination syndrome is more frequently seen in the male child between the ages of three and thirteen. Flashman and Leopold<sup>5</sup> collected 107 cases of which 60 had mediastinal tumor before leukemia was observed. They suggested that the thymic remains might be the original focus of this tumor. It is pointed out by Cooke that X-ray treatment of mediastinal lymph nodes resulted first in the disappearance or great reduction in size of the mediastinal tumor. Second, he found that acute leukemia developed very quickly after the subsidence of the tumor. In all of his cases the children died shortly after the use of X-ray.

In 1920 Wagner<sup>16</sup> reported a fatality following closely upon the use of X-ray. In 1930 Landau<sup>10</sup> reported a case in a five year old male with similar results.

Kneal<sup>9</sup>, Young and Spaulding<sup>18</sup>, Kato and Brunschwig<sup>8</sup>, Hensel<sup>7</sup>, Evans and Leucutia<sup>4</sup>, Webster<sup>17</sup>, Borchardt<sup>1</sup>, Flashman and Leopold<sup>5</sup> all reported cases of lymphosarcoma treated with X-ray who very shortly after X-ray developed leukemic blood picture. These cases varied in age all the way from three to sixty years of age. In all 17 a primary preponderance of granular cells was observed. After the use of X-ray in

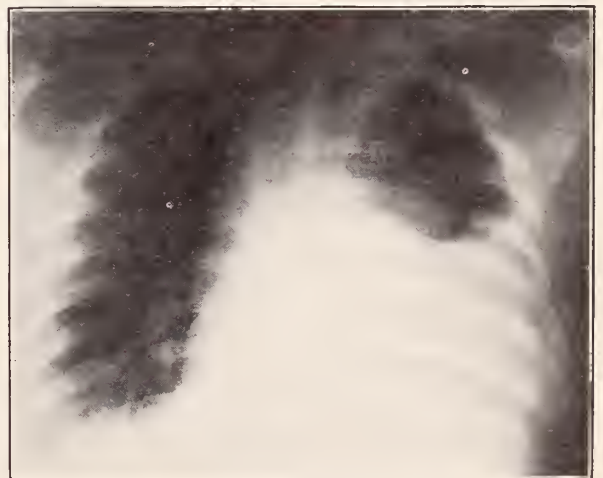


Fig. 7. Case 1. Note widening of mediastinal shadow and version to right.





Fig. 8. Case 3. Note areas of rarification in the humerus and in the glenoid cavity. Note: In general the cells in the tissues are smaller, less distinct and less definite, but still easily recognized as the type cell of the blood.

each case appeared a flood of small round cells which were thought to be lymphocytes. However, in four of Cooke's<sup>3</sup> cases he felt that there was considerable doubt as to the classification of these cells and suggested that they might be very early members of the myelocytic series. We feel fairly certain after rather exhaustive work that in H. J., at least, the stage of lymphosarcoma was followed later by typical granular type of response.

In closing, I should like to say that I am far too humble to be didactic, but I feel that the evidence submitted here brings up the possibility of the relation of leukemia of all three types to the general group of new growths.

My thanks are due to my colleagues at Grace Hospital. Most particularly am I indebted to Drs. Bartlett, Scott and Wheatley.

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#### POSTGRADUATE INSTITUTE OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY

The Third Annual Postgraduate Institute, offering an intensive and interesting study of the Diseases of the Digestive Tract, will be conducted by The Philadelphia County Medical Society from March 28 to April 1 inclusive.

The program to be held in the Bellevue-Stratford Hotel, Philadelphia, has been designed to meet the needs of all members of the profession, but particularly those in general practice.

Physicians from fourteen States having attended last year's institute, an invitation to attend the 1938 session has been extended to the members of all County Societies.

Lecturers, 73 in number, have been selected from among the foremost teachers in this great medical center. While approaching the subject from specialized viewpoints, the presentations will be of a strictly practical nature and of real value to the general practitioner, who finds digestive conditions occupy a considerable portion of his time.

The Philadelphia County Medical Society, in conducting the Postgraduate Institute, is meeting the demands of many physicians who believe that the organized profession should provide them with this type of opportunity for keeping abreast of medical progress, and thus maintaining the highest standards of medical service.

The only charge is a \$5.00 registration fee to cover the Institute's expenses.

Additional information may be secured from your County Society or from The Philadelphia County Medical Society, 21st and Spruce Streets, Philadelphia, Pa.

# A Method for the Collection and Analysis of Anesthetic and Surgical Statistics\*

MEYER SAKLAD, M.D.

Providence, R. I.

A true estimation of progress is based upon exact knowledge. Progress in anesthesia means a decrease in extent of morbidity due to anesthetic agents, methods or both. Exact knowledge is based upon statistics properly collected and analyzed. Statistics poorly gathered and improperly interpreted hinder progress.

In considering the relationships between anesthetic agents or procedures and the individual, as a whole, or to a structure within that individual, we, as anesthetists, base our conclusions either upon impressions or upon data which are the result of an investigation or of a survey. A conclusion which we might reach based upon impressions, we all agree, is of no scientific value. It is upon the determination of results by consideration of data that I wish to speak at this time.

Anyone collecting data and attempting to draw from them any information is dealing in statistics. Most of us dislike statistics and are apt to have very little understanding of the proper method of handling this material. As a result, many avoidable errors are made. Conclusions are often presented as factual whereas a proper statistical study may present a completely different picture. A great deal of material is wasted and a tremendous amount of honest labor is expended with progress not served but often hindered.

In collecting information and in interpreting this material simple common sense is not enough. A moderate knowledge of statistics is necessary. This is particularly true in anesthesia where the variables are many and the chances for error great. This is in the contradistinction to the laboratory worker who can frequently exclude variables in which he is not interested and focus his attention on controlled factors. The anes-

thetist is forced to consider records which he knows contain factors beyond his control but which, nevertheless, have to be taken into account.

No amount of careful analysis can compensate for a poorly planned record keeping system. Well planned systems were submitted by Tovell in 1932 and by Rovenstine in 1934. The latter system serves as the basis for the excellent annual report of the Waters group.

It is the desire of Dr. Rovenstine, Dr. Taylor and the author to extend, if possible, the advantages contained in the above systems. The above systems, along with one employed by several members of the Boston Society of Anesthetists, were considered. These systems are based upon the Hollerith punch card method. This method is ideal for this purpose, inasmuch as, first, variables can be readily considered; second, breakdown is accomplished by machine; third, the chances of error are small; fourth, the system is elastic since factors, as they arise, can be added at any time; fifth, the apparatus necessary for this work is available in most of the cities of the country; sixth, the time necessary for analysis with this method is markedly less than with other systems. It is impossible to get statistics economically from the voluminous case record. Because the method of breakdown is a mechanical one there is a considerable saving of labor. For the same reason the personal equation plays less of a role in determining conclusions than in other systems. Thus, bias does not enter into investigation by this method. Because of the above reasons the Hollerith method was used and a plan evolved. This plan is being experimentally employed at present. Because of the experience we are now having with the method unforeseen factors are accumulating and will be in-

\*Read before the Section on Anesthesia, 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.



cluded at the termination of this trial period. It is hoped that this system can be presented in its final form next year.

To cover the entire plan at this time would be impossible. An attempt will be made to consider some of the problems as they arose and the manner in which they were handled.

In this method of handling statistics all the variables are given code numbers. The variables as they occur are placed in their proper fields. Holes to correspond with these numbers are punched by machine in the card. For the purposes of breakdown and analysis these cards are sorted by machine.

In every well planned system ample provision for variables must be allowed. It is for this reason that the eighty column card is being employed. Room for any factor to which the patient may be subject or which may develop had to be arranged. The first plotted field on the card is Geographic. Next, in order, are; Case Number, Month, Year, Age, Sex, Risk, Preoperative Complications, Premedication, Anesthesia, Operative Complication, Duration of Anesthesia, Operation, Postoperative Complications, Time of Complication, Death and Time of Death. There is room provided to place the Anesthetist's and Surgeon's code numbers. Ample space remains for special studies.

Month, Year, Age, Sex and Risk were assigned code numbers. A list of Complications of all types had to be drawn up. Narcotics, singly, and in combination, were given code numbers. Anesthetic Agents and Methods were listed and numbered. Planes of Anesthesia and the Reasons for giving the anesthetic agent were likewise coded. Duration of anesthesia was arbitrarily divided into periods. Operative procedures of all types were listed and assigned numbers. Causes of death were listed. In this manner most of the variables as they occur are considered and can be made part of the record.

Not only is the inclusion of all possible variables important but, for the purposes of breakdown and analysis, it is essential that the variables be divided into groups and subgroups. Thus, Complications are divided as to the system involved, where possible: Blood, Circulatory, Central Nervous, Gastro-Intestinal, Genito-Urinary and Respiratory. It was found necessary to add the following complications: Infectious Disease, Infections, Malignant Disease,

Metabolic Disease, Obstetrical Complications and those that may be due to Drugs or to Technical Procedures.

To simplify analysis by machine and to cut down the time and cost of breakdown of data the assignment of code numbers had to be carefully done. Thus, all Blood Complications begin with one; Circulatory with two, Central Nervous, three, Gastro-Intestinal, four, Genito-Urinary, five, et cetera.

For the above reasons, this method of grouping was carried out also in coding operations. In this, grouping was carried out as to site of operation. Sites of operation were arbitrarily divided into: Head and Neck, Thorax, Abdomen, Lumbar, Perineum, Inguinal, Extremities and Spinal Cord or Column. Also added was a group of conditions where anesthetic agents are administered for Therapeutic purposes and so entitled. Abdominal surgery was further subgrouped as to area involved. These headings are Superficial External, Intraperitoneal Upper, Intraperitoneal Lower and Extraperitoneal Lower. Operations can be broken down as to site of operation and as to operating service.

Facility in analysis is important for several reasons. It encourages investigation. It cuts down the time and cost of study. It allows us to more closely approximate the truth in our findings. The grouping of variables is important, for example, in determining the relationship between upper abdominal surgery and respiratory complications to be distinguished from those that may occur following lower abdominal surgery.

The recording of data was made as easy as possible. Steps were omitted wherever possible with no damage to the efficiency of the system. Coding is done directly on the punch card by pencil or pen. The card is plotted into three areas. A section is devoted to each of the Preoperative, Operative and Postoperative intervals.

We feel that the Preoperative field should be coded before anesthesia and operation to allow for no change in opinion. Coding of the Operative area is best done in the operating room while the factors are fresh in one's mind. In this regard one should feel as does Dr. Waters that record keeping on the part of the anesthetist does not detract his attention from the patient but on the contrary serves to concentrate it. The Postoperative field is filled in on the pa-



tient's discharge from the hospital. With practice coding takes but little time.

With the system as now underway one should be able to get an excellent idea of one's own results. To total the results of several different workers using this plan and to give these figures a universal significance would now be a mistake. The error would lie in the fact that there is not a universal agreement on the interpretation placed on the many variables. For example, semi-closed anesthesia to some means partial rebreathing with no carbon dioxide absorption. To others it might mean complete rebreathing with partial carbon dioxide absorption. High spinal anesthesia to some might mean an involvement up to and including the fifth dorsal nerves. To others this term might mean anesthesia to the clavicles. Postoperative respiratory complication might be interpreted to mean a severe condition as pneumonia. Others might feel that a simple cough should be included. There should be an understanding on the many variables. We must be agreed on the extent of a fall necessary to call a fall in blood pressure marked. Just what is meant by severe anemia, high blood protein, marked nausea and emesis? How slow should a pulse rate be to label it bradycardia? What functional tests of circulation should be employed to determine functional capacity of the heart?

It is the feeling of the group responsible for this plan that it is not too much to hope that some day we might be able to interpret another's results in the light of our own findings. This, however, is dependent upon a 'meeting of the minds' about the many factors which may be variously interpreted. Appreciating this, the many factors are being individually considered and are being carefully defined. Arbitrary standards and time intervals are being set.

It is particularly because of this latter consideration that proper use of the punch card method, as herein sketchily placed before you, calls for not only an understanding of the mechanics of the method but also a knowledge of the exact interpretation of the many variables. For this latter reason employment of the system is useless to anyone not using standards.

### Summary

Impressions should not be relied upon to draw a conclusion of scientific value. A method of collecting factors from which data of scientific

value may be readily deduced is submitted. The system, as it now stands, is sufficient to give an anesthetist an excellent view of his own results. These results can not be accepted as to what might happen in another's hands. The difference, to a great extent, lies in the variation in the interpretation of factors. By standardizing variables and by agreeing on the interpretation and definition of variables it is hoped that results may be pooled. By pooling results larger series may be studied. With the studies of larger series more precise findings may be expected. Careful studies of properly collected information serves progress.



### NOTICE OF ORGANIZATION MEETING OF ORTHOPEDIC SECTION

At the annual meeting of the Connecticut State Medical Society in Bridgeport in May, 1937, the House of Delegates authorized the organization of a section on Orthopedics.

During the summer a small group, of which Dr. M. K. Lindsay of New Haven was the moving spirit, undertook the problems of arranging a program and section dinner at the Clinical Congress, and preparing a Constitution and By-laws.

In order to complete the organization of the section, it is proposed that a meeting be held at the Newington Hospital for Crippled Children at Newington on Wednesday, March 23rd, at eleven o'clock. The morning session will be devoted to the business of completing the organization of the section. The afternoon session will consist of a presentation of selected cases by the staff. The hospital administration has generously offered to provide luncheon.

All members of the Connecticut State Medical Society who are interested in the organization of the Orthopedic Section are invited to attend. Those who plan to become members of the section will facilitate the work of organization by writing to Dr. J. L. Vickers, Acting Secretary-Treasurer, 31 Hillside Drive, Greenwich, stating Medical and Academic Degrees with names of institution and dates, society memberships, teaching and hospital appointments, number of years in practice, and estimated per cent of practice in orthopedic and traumatic surgery.

Those who plan to attend the meeting in Newington on March 23rd will please notify the Secretary not later than March 20th.

# Clinical Studies and Treatment of Primary Carcinoma of the Lung<sup>\*</sup>

RICHARD H. OVERHOLT, M.D., Boston, Massachusetts<sup>\*\*</sup>

Success in the surgical cure of malignancy in any region of the body is dependent upon two basic facts: first, that it is technically possible to excise widely the involved tissue or organ; and second, that the lesion is local in its extent at the time treatment is instituted. The first prerequisite, that of excising the organ safely and without undue restrictions on the patient's ability to enjoy life afterward, rests principally with the surgeon. The responsibility for the second prerequisite, which is equally as important, rests with the patient and the general medical profession. The patient must heed early symptoms and signs. The physician who is asked for advice during this early period must begin the investigation which will result in early detection.

Generally speaking, interest in the clinical features and in the early symptoms of carcinoma has been directly proportional to the likelihood of cure. The more hopeless the lesion is from the standpoint of location, the less attention has been paid to early diagnosis. Such has been the case with pulmonary carcinoma. Up to as recent a time as five years ago primary carcinoma of the lung was considered hopeless and not a single five-year cure was on record. The literature on the subject consisted principally of an analysis of autopsy findings. Our concept was built up from descriptions of the terminal picture. When the diagnosis was arrived at before death, it was usually based upon evidences of widespread metastasis, mediastinal or pleural extension of the lesion, or the effects of an associated infection in the lung. Naturally the medical profession came to take a pessimistic attitude and our chief concern in regard to such patients has been, in the past, palliative treatment. No particular advantage could be seen in early clinical discovery.

Recent developments in thoracic surgery, however, are of great importance to certain patients who suffer from primary malignancy of the lung. The wide excision of pulmonary tissue is possible. Pneumonectomy, the total removal of an entire lung on one side, with resection of mediastinal glands, meets the basic surgical requirement for the possible cure of carcinoma of the lung, if operation is performed at an early stage of the disease.

The development of lobectomy has come about after many years of experimentation and sporadic attempts to remove a pulmonary lobe in man, chiefly for bronchiectasis. The accomplishment of pneumonectomy has been slower. Gluck<sup>1</sup>, in 1881, demonstrated the possibility of the successful extirpation of an entire lung in the experimental animal. Kummell<sup>2</sup>, thirty years later, carried out pneumonectomy in man but the operation was unsuccessful. Nissen<sup>3</sup>, in 1931, then working in Sauerbruch's clinic in Berlin, resected the left lung for bronchiectasis. Soon other successful operations were reported by Graham and Singer<sup>4</sup>, Rienhoff<sup>5</sup> and Overholt<sup>6</sup>.

For an excellent historical resume of the subject the reader is referred to a paper by Heuer<sup>7</sup> on the development of lobectomy and pneumonectomy in man.

The demands upon surgery are also greater for all those types of malignancy in which radiation is of little value. Deep roentgen-ray therapy has been, on the whole, disappointing. The majority of primary tumors of the lung are epidermoid lesions arising in the large stem bronchi, are deep seated and slowly growing. The experience quite generally has been that the epidermoid forms are highly radio-resistant. The implantation of radium inserted bronchoscopically or directly at the time of thoracic exploration has gained some

<sup>\*</sup>Read before the Middlesex County Medical Association, Middletown, Connecticut, October 14, 1937.

<sup>\*\*</sup>From the Department of Thoracic Surgery, The Lahey Clinic.



favor in England. Reports suggest, however, that the course of the disease has not been greatly influenced. Radiation may not result in temporary palliation. Occasionally when the lesion obstructs the bronchus and is accompanied by pulmonary suppuration the symptoms may be aggravated and life actually shortened. The direct implantation of radium may produce ulceration of the major bronchus and an earlier development of mediastinitis than might normally occur.

At the present time, with radiation failing, the responsibility for a possible cure has been placed at the door of surgery. The challenge has been met by repeated success with pneumonectomy. The greatest responsibility now rests with those who first examine patients with early suspicious signs of malignancy. It is, therefore, important to direct our attention to these early signs. It is also important to determine the type of malignancy which is the more favorable from the standpoint of surgical excision.

During the past six years we have studied sixty-two patients in whom primary malignancy has been suspected. In forty-nine of these patients tissue has been obtained for microscopic examination and the diagnosis verified. The positive histologic diagnosis was made in the living subjects in forty-five instances. It was necessary to rely on autopsy findings to reveal the presence of primary pulmonary malignancy in only four of the proven cases. The incidence of clinical recognition of carcinoma of the lung in the series of verified cases was, therefore, 90 per cent. If all the patients were included in whom a possible primary lesion was suspected the percentage of clinical discoveries would be 70, which is far above the expected figure.

For the purposes of analysis of the clinical features of the disease only the forty-nine verified cases should be included. The ages ranged from thirty-three to sixty-eight years. Thirty-five of the patients were men and fourteen, women, a ratio of more than 2:1.

All primary malignant lesions of the lung can be conveniently divided into two groups, the peripheral or pneumonic form and the stem bronchus form. This division is arbitrary, based upon the location of the tumor and not upon the histologic type.

**Peripherally situated lesion.** In one-third of the patients, sixteen of forty-nine, the lesion

was found in the mid-lung zone or in the periphery of the lobe. These lesions apparently had taken origin from the lining cells of a small bronchus or bronchiole. Since all of these lesions were well out in the lung substance, the roentgenogram revealed a shadow of the tumor, the usual picture being a circumscribed region of homogenous density. In this group of cases the lesion was not intimately associated with the major bronchi and did not interfere with the passage of air into the lobe. Atelectasis of the lobe was therefore not a frequent finding. The peripheral lesion may enlarge to quite an extent without producing any symptoms or signs. Cough, weakness, weight loss, hemoptysis and fever were the most frequent symptoms, occurring in the order named. Later, with necrosis in the tumor and superimposed infection, the shadow is variable. Great difficulty in differentiating tuberculosis or lung abscess may be found. The former usually can be ruled out by bacteriologic examination. The history, clinical course and character of the sputum will aid in differentiating a nonspecific suppurative condition.

Lateral, oblique and over-exposed roentgenograms are often of value. The peripheral lesion cannot be visualized bronchoscopically. A mapping out of the bronchi on the roentgenogram after the intrabronchial injection of lipiodol may aid in the localization of the lesion but usually gives little information as to the true nature of the lesion. On rare occasions it is possible to detect malignant cells in the sputum. In the early case we have never been able to establish the diagnosis in this way. Aspiration may be considered as a possible diagnostic procedure if the peripheral lesion is adjacent to the pleura. A negative result would not rule out malignancy. Puncturing of lung substance in infected regions carries a definite risk. Aspiration, therefore, of suspicious malignant lesions in the lung should not be generally employed. The diagnosis of the peripheral type of neoplasm must rest on presumptive evidence and be verified by thoracic exploration if metastasis cannot be demonstrated.

**Stem bronchus carcinoma.** In thirty-three out of the forty-nine proven cases of primary pulmonary malignancy the lesion was found to be located in one of the major bronchi within a short distance of the carina. The growth of a very small tumor, in this location, produces a more



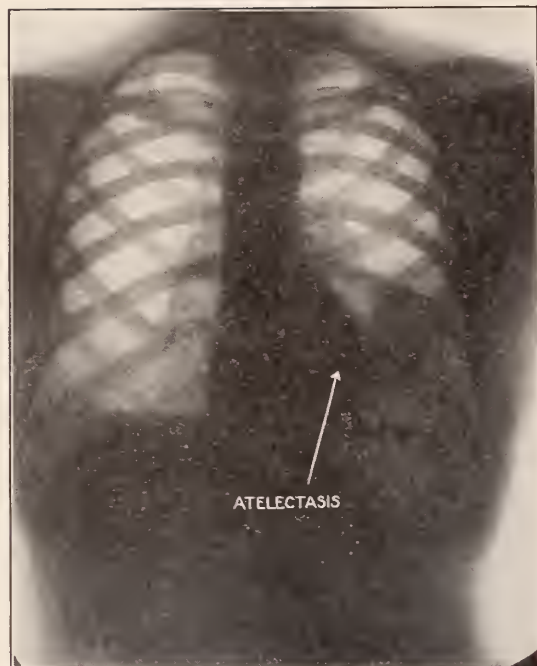


Fig. 1. Primary carcinoma in the bronchus of the left lower lobe. Atelectasis of the corresponding lobe and absence of a discrete shadow of the tumor itself may be noted. A chronic nonproductive cough of eight months' duration was the principal symptom.

definite series of events than a lesion growing out in the peripheral portions of the lung. The situation of the tumor within a major bronchus where the mucosa is highly sensitive to the cough reflex actuates a persistent, chronic, nonproductive cough at an early period in its history. Slight erosion of the mucosa results in blood-streaked sputum. Partial obstruction of the bronchus is responsible for wheezing attacks. Complete obstruction of the major bronchus results in atelectasis of the corresponding lobe. Chest discomfort, pain, dyspnea and indigestion are frequent symptoms. With the rapid development of an infection distal to the occlusion in the bronchus the patient may present all of the symptoms of lobar pneumonia. Should the tumor incompletely occlude the bronchus at the time and infection become superimposed, a productive and often foul sputum will result.

The clinical picture may readily be confused with lung abscess, bronchiectasis or even tuberculosis, the latter especially if the lesion is in the upper lobe bronchus.

Three procedures are available to aid in estab-

lishing the diagnosis of the stem bronchus type of carcinoma; first, reontgenography, second bronchoscopy and third, bronchography. The first and last may yield suggestive evidence while bronchoscopy furnishes direct evidence. The roentgenogram of the thorax as a rule shows the characteristic triangular shadow of lobar atelectasis or a diffuse opacity of the entire thorax if the main stem bronchus is completely occluded. Rarely does the stem bronchus lesion, itself, cast a shadow and even if the lesion has progressed to a late stage the atelectatic shadow of the corresponding lobe obscures detail. In twenty-nine of the thirty-three stem bronchus lesions in our series atelectasis was the sole roentgenologic sign and in only four patients did the lesion itself cast a shadow. We hope to see in the future patients in whom the lesion in the bronchus is so small that it fails to produce occlusion. In that event the roentgenologic examination would fail to show any evidence of abnormality.

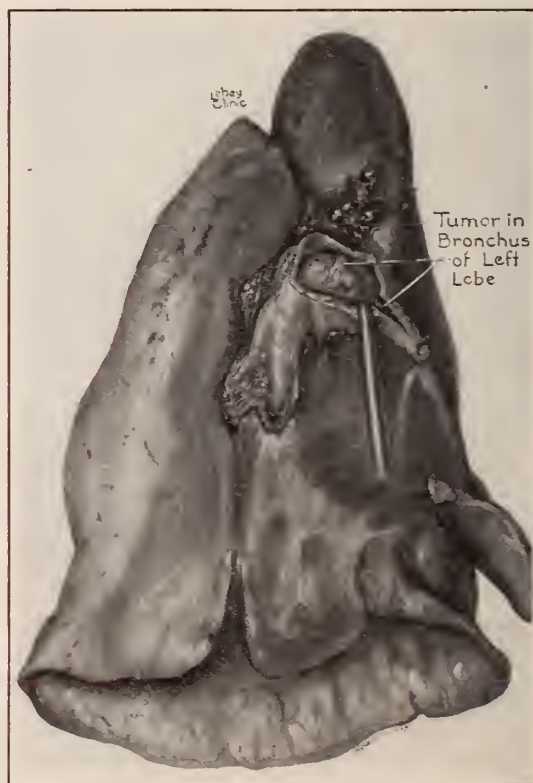


Fig. 2. Medial aspect of the surgically removed left lung. Tumor in the main stem bronchus may be noted. The bronchus of the lower lobe is completely occluded. The bronchus of the upper lobe is partially obstructed.

Bronchoscopy must be relied upon to establish the diagnosis of the stem bronchus tumor. The fact that two-thirds of all malignant lesions of the lung are situated in the primary or secondary divisions of the major bronchi brings them within the scope of visibility. We were able to obtain a specimen for microscopic study in twenty-eight of the thirty-two cases of our series.

In addition to the visualization of the tumor and obtaining a bit of tissue for microscopic diagnosis, bronchoscopy gives much other valuable information. It is necessary to know the exact location of the lesion if a resection is done later. Widening of the carina and fixation of the mediastinum indicates the presence of mediastinal glandular involvement. Dilatation of occluded bronchi may relieve the patient of some of the effects of absorption of septic material and improve his condition prior to operation. The third diagnostic procedure that may aid in the diagnosis is bronchography. The visualization of the contour of the tracheobronchial tree may be of value when the lesion is beyond the scope of bronchoscopic visibility.

**Operability.** All patients who have proven carcinoma of the lung or in whom carcinoma is suspected deserve further investigation in respect to operability. A careful search should be made for gross signs of extension. The roentgenologic and bronchoscopic examinations will often determine the presence of mediastinal involvement. A paralyzed diaphragm is good evidence of mediastinal infiltration. Pleural fluid, if present, should be aspirated and examined pathologically. A pneumothorax can also be induced and the pleural surfaces inspected directly with the thoracoscope. Skeletal roentgenograms will rule out bony metastasis. A biopsy of enlarged cervical lymphatic glands should be done.

The clinician should not be discouraged necessarily by what appears to be an hopelessly ill patient. If metastasis cannot be demonstrated and if the critical condition of the patient is due to an infected lung distal to a blocked bronchus, the possibility of surgical treatment need not necessarily be abandoned. Bronchoscopic dilatation of the occluded bronchus may result in temporary improvement. The gradual institution of a pneumothorax may improve the patient's condition sufficiently to warrant surgical exploration. The removal of a lung not only rids the patient of the tumor but also relieves

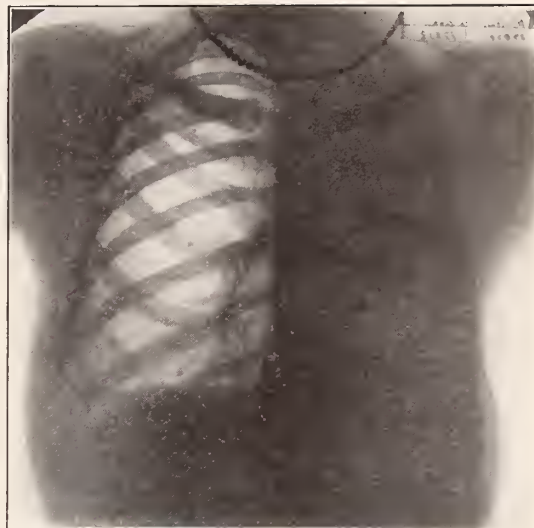


Fig. 3. Roentgenogram of the thorax three and a half years after left pneumonectomy for primary carcinoma of the left lung. A thoracoplasty was not done.

him immediately of the reservoir of septic material.

In our series of forty-five patients in whom the diagnosis was established during life, metastasis was found upon clinical investigation in thirteen patients. Five patients were rejected because of their poor general condition. In one patient a very small, low grade malignant lesion was present in the right lower lobe bronchus. The lesion was treated by bronchoscopic fulguration. The tumor completely disappeared and has not recurred in the two years since fulguration. Thoracic exploration has been carried out in twenty-six instances. In thirteen patients evidence of extension into the mediastinum was demonstrated and the operation had to be concluded at that point. In half of the patients subjected to exploratory thoracotomy, however, no evidence of extension of the tumor could be found and the lung was resected. In two patients a lobectomy was thought to be sufficient. In eleven patients the total removal of the lung was done. Both patients in whom lobectomy was performed had an uneventful convalescence. Both patients died subsequently, one four months and the other six months after operation, with evidences of mediastinal involvement. Seven of the eleven patients on whom pneumonectomy was performed survived the operation. There have been two deaths among the





Fig. 4. Three and a half years after left pneumonectomy was performed. State of nutrition and absence of deformity may be noted. The patient is symptom-free and leads a normal life.

survivors. One patient died six months after operation as a result of extension of the tumor, and the other died after a period of one year, from other causes. In this particular case an autopsy was performed and no evidence of a recurrence of the pulmonary carcinoma could be found.

Five patients in whom pneumonectomy was performed for a proven primary malignant lesion of the lung are still living without evidence of recurrence. The longest period of time that has elapsed since the operation is four years, the next three and a half years. The degree of rehabilitation has been quite complete in all five patients and at the present time the patients are free of symptoms and are able to carry out the ordinary activities of life without becoming short of breath and without undue fatigue.

### CONCLUSIONS

The rational attitude at the present time in regard to primary carcinoma of the lung is:

1. A malignant lesion should be suspected in all patients, middle-aged or older, who have obscure thoracic lesions.
2. The majority of primary carcinomas of the lung originate in the stem bronchus. The lesion itself rarely casts a roentgenographic shadow. Atelectasis of one or more lobes is the usual roentgenologic finding. Bronchoscopy is inval-

able in the study of stem bronchus carcinoma.

3. Peripheral growths may simulate many other pathological processes and surgical exploration is indicated in questionable cases.

4. All patients having a primary malignant lesion in the lung should be studied to determine the operability of the lesion. Indecision and delay means that the patient may throw away his only chance for recovery.

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- 1101 Beacon Street, Brookline, Mass.



# The Removal of a Large Ovarian Cyst, 135 Pounds

HERBERT THOMS, M.D.,\* New Haven, Conn.

Exceedingly large tumors of the human body have a peculiar interest from several aspects. The deformity, which is often extraordinary, is in itself interesting, while the attempts at cure or removal have both a technical and historical interest. The origin and structure of large tumors also attracts attention from the pathological point of view.

One of the most important surveys of this subject in relation to ovarian tumors is that made by Lynch and Maxwell<sup>1</sup> in 1922, in their work on pelvic neoplasms. These authors in a review of the literature gathered 87 cases in which the tumor weighed over 100 lbs. and in ten of this series the weight exceeded 200 lbs. While it is true that most large ovarian tumors are removed at the present day before they attain extraordinary size, yet in the above series twenty-seven or nearly one-third were reported after 1900.

A glance into the literature of recent years shows an occasional report of a large ovarian tumor, but growths attaining the size of the case reported below must be rare. Among the cases reported during the past few years are those of Stone<sup>2</sup> (1924), total fluid removed during 3 weeks — 123 liters; Givvin<sup>3</sup> (1926), cyst and contents — 122 lbs.; Barnett<sup>4</sup> (1927), 108 pts. of fluid removed; Gibson<sup>5</sup> (1933), 136 pts. of fluid removed; Gemmell<sup>6</sup> (1934), cyst and contents — 144 lbs.; Kidd<sup>7</sup> (1937), cyst and fluid — 110 lbs. 12 ozs.

In studying case histories of large ovarian tumors one is impressed with the fact that despite the size of the growth patients may live for a long time in comparative comfort. Previous to the general use of operative surgery large ovarian tumors were treated almost universally by tapping. Lynch and Maxwell mention a remarkable case reported by Ashby and seen by J. L. Atlee in which, during a period of forty-two years, the patient had been tapped 269 times to

the extent of 17,000 pts. or more than 33 hogs-heads of fluid. Emmet<sup>8</sup> in 1884 quotes Peaslee in saying that one death in every 25 or 30 cases occurs from the first tapping, probably from infection. Among other dangers associated with such tumors is that of rupture intraperitoneally as a result of trauma or from gradual thinning of the cyst wall. When such accident occurs frequently there may be no abnormal symptoms other than increased diuresis. Baldy<sup>9</sup> writing in 1898 says that rarely in such instances the cyst wall may shrivel and a radical cure be affected.

In the present case 121 lbs. of fluid were removed prior to operation and the weight of the cyst wall and fluid lost at operation would account for at least 15 lbs., so that I feel we are within reasonable limits in saying that the entire structure weighed 135 lbs. The accompanying photographs are so graphic in their portrayal that a detailed description of the dimensions and appearance of the patient on admission will be omitted. In the following resume of the clinical history only those points which have definite interest will be set down.

The patient, a 58 year old American widow of Portuguese extraction, entered the New Haven Hospital, Nov. 15, 1937, having been referred by Dr. L. C. Foster of New Haven. The present condition began about fifteen years ago when the patient noticed that the abdomen was increasing in size. She consulted a physician at that time and was told that she had an ovarian cyst which should be removed. Operation was not considered by the patient due to the fact that her husband was in poor health and needed her help and care. Later the husband developed cerebral hemorrhage with hemiplegia and died seven years ago (1930). The patient stated that during the past two years the abdominal swelling had doubled in size and interfered with the adequate performance of household duties. Up until the day of admission, however, she had done her own

\*Department of Obstetrics and Gynecology, Yale University, School of Medicine.



housework, which included cooking for several members of the household. The family and past histories were essentially irrelevant. The menstrual history showed irregularity since the second year of marriage following a miscarriage, her only pregnancy. At times the amenorrhea lasted over a period of three months. The menopause occurred at age 50, in 1929.

Following admission to the hospital Dr. Gerald Klatskin of the Department of Medicine was asked to see the patient relative to her general physical condition. His comment follows: "The patient lies on her side and presents an amazing picture. The disproportion between the

size of the abdomen and the relatively small trunk is marked. There are numerous dilated veins over the abdomen, chest and arms. There are numerous large varicosities, but no edema of the legs. By percussion the heart is not enlarged, sounds of normal quality, rate and rhythm normal, P2 = A2. Soft systolic murmur over the precordium loudest at the pulmonic area. Radial arteries soft. B.P. 170/85. Fundi, discs and vessels normal, no hemorrhage or exudate. Abdomen greatly distended by fluid, no masses or viscera palpable. High diaphragm on right, few rales at left base. Impression: There is no evidence of cardiovascular disease and, as far as the heart is concerned, the patient is a good operative risk. The greatest hazard is the probability of vascular collapse following decompression of the abdomen. If surgically feasible, slow decompression in several stages before total removal of the cyst would appear to be the most logical way of avoiding shock. I suspect the hypertension present is a compensatory phenomenon and will clear up following operation."

Shortly after the entrance of the patient to the hospital she was seen also by Dr. A. H. Morse in consultation, who agreed with Dr. Klatskin and the author that decompression should be done gradually. Accordingly, on Nov. 17, 1937, under novocain anesthesia I inserted a No. 16F catheter through the abdominal wall by means of a trocar, and 11 lbs. of turbid yellow brown fluid was withdrawn. The catheter was sutured to the skin and clamped off and a suitable dressing applied. The fluid was drawn off as follows:

<i>Date</i>	<i>Amount</i>	<i>Weight</i>
11-17-37	4000 c.c.	11 lbs.
11-17-37	4000 c.c.	11 lbs.
11-19-37	3000 c.c.	7 lbs.
11-20-37	6000 c.c.	12½ lbs.
11-22-37	4000 c.c.	11 lbs.
11-24-37	4000 c.c.	10 lbs.
11-25-37	8000 c.c.	18 lbs.
11-26-37	7000 c.c.	15½ lbs.
11-29-37	6000 c.c.	12½ lbs.
12- 1-37	750 c.c.	2½ lbs.
12-10-37	4500 c.c.	10 lbs.

During the period of removal of the fluid there was definite reaction on the part of the patient, especially during the second week. The temperature arose to average about 1 to 2 degrees, the patient was decidedly uncomfortable and



suffered from nausea and anorexia. By Dec. 10, 1937, however, the blood pressure had fallen to 120/65 and the general condition seemed to be as favorable as could be expected for operative intervention. At this time the abdominal wall had contracted to a remarkable degree and the danger of vascular collapse seemed greatly lessened. The appetite was good and the vital signs were essentially normal.

On Dec. 15, 1937, I performed laparotomy assisted at operation by Dr. G. E. Lindskog. Preliminary to operation the patient received nembutal Grs. III and morphine Gr.  $\frac{1}{4}$ , atropine Gr. 1/100. The general anesthetic was cyclopropane. A right paramedian incision was made and on opening the peritoneal cavity there was an escape of a considerable quantity of blood-tinged serous fluid containing floating masses of fibrin. The peritoneal surfaces were somewhat adherent because of recent friable fibrinous adhesions, probably the result of the recent chemical peritonitis due to the cyst fluid which probably escaped following paracentesis. The adhesions were very easily separated and the collapsed ovarian cyst was delivered through the incision on to the abdominal wall. The pedicle was found to consist of the left infundibulopelvic ligament, left broad ligament, left ovarian ligament and fallopian tube. Inspection of the right tube and ovary revealed fibrous adhesions and one or two small cystic structures. It was decided, therefore, that the procedure of choice was to remove the entire internal genitalia. This operation was carried out without difficulty and the closure was without particular interest. The rectus muscles were loosely approximated with interrupted 00 plain c.g. sutures. Six Kaldermic tension sutures were laid beneath the rectus fascia and the fascia itself was brought together by interrupted figure of eight 00 chromic c.g. sutures. The skin was brought together with interrupted A silk sutures and the tension sutures were tied over rubber protectors. During the operation 1,000 c.c. of normal saline, 1,000 c.c. of 5% glucose by infusion and a transfusion of 500 c.c. of citrated blood were given and the patient left the operating table in good condition. There was an uneventful convalescence and on January 6th, the twenty-second day after operation, she left the hospital. For two or three days previous to this time she had been up and around, and was able to walk without difficulty. The pathological report by Dr. Robert Tennant was; a multilocular cystadenoma of the left ovary, simple cyst of the right ovary, leiomyomata of the uterus and atrophy of endometrium with cystic changes.



noma of the left ovary, simple cyst of the right ovary, leiomyomata of the uterus and atrophy of endometrium with cystic changes.

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# Laboratory Aids in the Diagnosis of Syphilis

FRIEND LEE MICKLE, Sc.D.

Director, Bureau of Laboratories, Connecticut State Department of Health

It is the opinion of Hinton<sup>1</sup> that the *detection* of syphilis is chiefly a laboratory function, while the *recognition* of the disease, its identification as such or its disproving in the relatively few instances in which laboratory tests have failed to detect it or have falsely indicated it, is entirely a clinical function; and that the *diagnosis* of syphilis must be based on a wise appraisal of both the laboratory and clinical findings. Many share his belief that in the hands of most physicians good laboratory evidence is superior and that only to the most expert syphilologists is the clinical evidence the more accurate.

The reliability of the dark-field test depends upon the experience of the microscopist in examining exudates from lesions for *Treponema pallidum*. Factors influencing the reliability of dark-field examinations are the accessibility of the lesion and the local application of antiseptic drugs. The dark-field examination is a particularly valuable diagnostic aid at the time of the primary lesion. It has value during the first and sometimes in the second year of infection but very rarely later. Spiral organisms indistinguishable from *pallidum* are sometimes found in the mouths or throats of non-syphilitic persons. When treponemes are found in such secretions confirmatory blood tests must always be performed before a diagnosis is reached.

All complement-fixation methods for serodiagnosis of syphilis — whether performed with blood serum or with spinal fluid — are modifications of the original Bordet-Wassermann technic. Complement fixation tests depend upon the ability of syphilitic blood serum or spinal fluid in the presence of a beef-heart antigen or lipoidal extract to fix or render inert guinea-pig complement in contrast to the action of normal blood serum. At present the Bureau of Laboratories uses an antigen reinforced with 0.4% cholesterol with fixation at 4°-6°C. for four hours.

Flocculation and precipitation tests are reliable, simple and dependable laboratory procedures in the diagnosis of syphilis. The principle involved is that the serum of a syphilitic person, when mixed with a suspension of lipoids, will precipitate or flocculate the lipoids. The only biological reagent necessary is the antigen which

is usually prepared from beef heart. Flocculation procedures have now received wider use than have the complement-fixation technics, particularly by the laboratories in smaller hospitals, city health departments and clinics.

Serologic blood tests are of value in detecting syphilis after the first few days of the primary lesion. In the initial stage, during the first two weeks of the developing chancre, and in latent syphilis following treatment both fixation and precipitation tests may be negative. It also must be borne in mind that serodiagnostic tests may become negative under treatment before the patient is cured. No test has been devised that will always give a negative reaction with the blood of every individual not infected with syphilis.

No complement-fixation test or precipitation reaction is immunologically specific of syphilitic infection but the more modern of each have been so skillfully adjusted that they have high degrees of specificity for practical use. It cannot be too strongly emphasized that none of these procedures is absolutely diagnostic. Neither does a positive test always indicate syphilis nor a negative result always exclude the disease even when the procedure has been reliably performed. Findings must be interpreted together with the full clinical knowledge of the case.

Laboratory tests bear an important relation to the prognosis, treatment and cure of syphilis, but clinical improvement and serologic improvement do not always run a parallel course. The laboratory test is the physician's most important tool in the diagnosis of this disease but it nevertheless remains only a tool. Because physicians are making constantly increasing use of every laboratory facility for the diagnosis and as aids in treatment of syphilis and since the public is demanding of the physician the ultimate eradication of this disease, it is essential that all laboratory diagnoses — microscopic, serologic and chemical — be made more dependable in state, municipal, hospital and privately owned laboratories.

1. Hinton, W. A. Syphilis and Its Treatment. 1936. New York. The MacMillan Company.

# Tuberculous Infection Among Negro Children in New Haven<sup>\*</sup>

CLEMENT F. BATELLI, M.D., Dr.P.H.  
Director of the Bureau of Tuberculosis  
New Haven Department of Health

The high case rate and high death rate among 5,000 colored population in New Haven initiated a tuberculin testing and X-raying project carried on by the Bureau of Tuberculosis of the local Department of Health. Federal funds supplied through a Social Security Grant paid for the necessary nursing service and 100 of the 134 X-rays taken during this survey.

Clinics were set up in the various schools in the negro section including two Junior High Schools. The clinic personnel included one physician and two nurses. The physician tuberculin tested the children; the nurses prepared their arms for the injection and also took care of the clerical work.

Permission cards were sent to the parents through the school children and those who failed to return a signed consent slip for the test were visited personally by the nurse on the project.

Of the 1,155 parents to whom permission cards were sent, 856 or 80% returned them requesting the tuberculin test be given to their children. Children with known positive tuberculin reactions were not asked to have the test repeated.

The intradermic or Mantoux technique was employed, the beginning dosage being 1/50 mgm. for pre-school and contact children and 1/10 mgm. for school children. The reading was made in forty-eight hours and no severe reactions were obtained.

A total of 1,202 individuals were tested in this survey of which 190 or 15.8% reacted positive to the tuberculin test. Of the 1,130 individuals tested, who were under twenty years of age, 521 were males with 66 or 12.6% positive and 609 were females with 73 or 11.9% positive reactions. There was no marked difference in the amount of infection found in the two sexes.

A comparison of the results of this survey with those obtained by Dr. Herbert R. Edwards in the

Prince Street School study<sup>1</sup> made in 1931 is quite interesting.

As Dr. Edwards' study included children between the ages of five to nineteen only, we shall limit our remarks to the results obtained in those children falling within this age group. It will be noticed in the tables listed that Dr. Edwards found 38.1% of the children registered at the Prince Street School reacted positive to the tuberculin test as compared to 14.5% for the negro children in this survey. The evidence of tuberculous infection in the former study was twice as high in every age group as that found in the present survey varying from 14.1% for the age groups five to nine, 58.5% for the age groups fifteen to nineteen as compared to 8.2% and 26.7% respectively for the negro survey.

It might be held by some that this comparison is not fair insofar as we have excluded known positive reactors from the present survey. We have on record 183 contact children tested with 123 or 67.2% positive reactors. If we add this number to those under twenty years of age tested in this survey, we find that a total of 1,313 negro children have been given the tuberculin test with 262 or 19.9% positive reactors. This again is a much lower figure than that obtained by Dr. Edwards.

As a result of this last study, 137 children were X-rayed of which 106 or 77.3% showed no demonstrable lesions and 31 or 22.7% showed calcified hilar glands. No cases of active pulmonary disease were found. In the Prince Street School study<sup>1</sup> Dr. Edwards found in 215 children X-rayed 71 or 33.0% with calcified mesenteric or hilar glands. There were thirty-two cases of suspicious glandular disease with one suspicious case of adult type pulmonary tuberculosis.

Our records show that of 147 contact negro children previously X-rayed, 63 or 43.5% were

<sup>\*</sup>From New Haven Department of Health.



## Tuberculin Survey, Prince Street School — 1931

Age Group	Total Number	Total Number			Total Per Cent				
		Male	Female	Positive	Male	Female	Positive	Male	Female
5 to 9	184	90	94	26	9	17	14.1	10.0	18.1
10 to 14	297	157	140	141	75	66	47.4	47.7	47.1
15 to 19	82	43	39	48	27	21	58.5	62.7	53.8
Total	563	290	273	215	111	104	38.1	38.2	38.0

## Negro Tuberculin Survey — 1937

Age Group	Total Number	Total Number			Total Per Cent				
		Male	Female	Positive	Male	Female	Positive	Male	Female
0 to 5	197	78	119	3	1	2	1.5	1.3	1.6
5 to 9	438	214	224	36	17	19	8.2	7.9	8.4
10 to 14	379	184	195	69	39	30	18.1	21.5	15.2
15 to 19	116	45	71	31	9	22	26.7	20.0	30.0
20 to 24	26	1	25	14	1	13	53.8	100.0	52.0
25 plus	46	2	44	37	2	35	80.4	100.0	79.5
Total	1,202	524	678	190	69	121	15.8	13.1	17.8

found to have lesions of various degrees ranging from calcified mesenteric or hilar glands to frank pulmonary disease — the last named being found in seven cases. Again this brings out the important fact that contact children are not only more liable to tuberculous infection but actually show a larger percentage of tuberculous disease. In the contact group, there was found not only almost twice as many cases of tuberculous disease, but seven cases of pulmonary tuberculosis as compared to none for the non-contact or general population group.

It is obvious that the plan of tuberculin testing and X-raying of school children to discover early infection and disease is of great value in the prevention of tuberculosis in both the home and in the school. The finding of thirty-one negro children with childhood type of tuberculosis offers the parents and public health authorities an opportunity to supervise their activities and keep them under close observation, thus preventing a later breakdown with actual pulmonary disease.

If further progress in tuberculosis prevention is to continue, the parents and children of the present generation must be made aware of the

facts about this disease. This duty falls above all upon the shoulders of the family physician for it is to him that the parent looks for advice in matters of this kind. Every family physician should play his part in the spreading of information regarding tuberculosis, its prevention, and control by means of the tuberculin test and the X-ray.

1. "HEALTH" Bulletin of New Haven Department of Health, August 1931, Vol. LVIII, No. 8.



## IMMUNIZATION AGAINST TETANUS

Active immunization against tetanus may now be produced with the alum precipitated tetanus toxoid. A combined diphtheria and tetanus toxoid may be used to immunize against both diseases at the same time. Tetanus toxoid also may be given in combination with typhoid-paratyphoid vaccine. Active immunization against tetanus has extensive application in the animal industry.—*Fernan-Nunez, Wis. Med. Jour, Jan., 1938.*



# Socialized Medicine in the Soviet Union

EMILY M. PIERSON, M.D., Cromwell, Conn.

Soviet medicine has a history of only twenty years. During four of these the devastation of world war was continued by the blockade and invasion of the War of Intervention. Famine and pestilence,— frequent visitors to tsarist Russia, — followed the war. Tsarist Russia had a number of brilliant physicians and scientists and a struggling private medical system, but they were unable to protect the health of their large and heterogeneous population scattered over a vast country. They left to their Soviet successors a heritage of disease and ignorance.

Even in the light of inadequate tsarist statistics the Soviet medical system has already made brilliant progress. From 1913 to 1936 the general death rate fell from 30.2 to 11.2 per 1,000 population. Infant mortality and mortality from tuberculosis have both been reduced one-half. There has been a spectacular reduction in venereal disease. Notably, by 1935 the incidence of primary syphilis decreased from 25.7 per 10,000 in 1913 to 1.8 in cities, and to half of this in rural districts. While congenital syphilis has been conquered in Moscow and other large cities by universal prenatal examinations and treatment, Professor V. L. Bronner, Director of the Central Institute for Skin and Venereal Diseases in Moscow, admits it is too soon to claim this for the Union as a whole.

In the struggle against epidemics several scourges of tsarist Russia have been wiped out; others are under control or materially reduced. Cholera was last seen in 1927. Smallpox, which as late as 1920 showed 150,000 reported cases, had only 400 in 1936, and none in the first two months of 1937. Plague, with 3,500 reported cases from 1905 to 1914 is now confined to a few foci in the Far East closely watched by Epidemiological Institutes. Typhoid incidence in 1936 was  $\frac{1}{4}$  of the tsarist rate of 25 per 10,000 population and is rapidly decreasing. Dysentery is still a problem especially in the tropics and Orient. Trachoma, anthrax and rabies are under control. Diphtheria has dropped from 34.5 per

10,000 in 1913 to 6.3 in 1935. Typhus, a scourge of ghastly proportions in tsarist Russia, was responsible for millions of deaths as late as 1922. There has been a steady decrease in incidence of typhus, yet in 1929 there were 2 cases reported for every 10,000 population. Control means changing the sanitary habits of a people. The eradication of typhus will be a major objective of the third Five Year Plan. The fight against malaria has been spectacular. About three million cases were registered annually before the Revolution. The campaign is being waged with every known weapon. Nine Institutes of Tropical Diseases and more than 2,000 permanent malaria stations direct the work. Thirty-two million people were examined and over four million treated in 1936. As a result, cases were reduced by 30% and mortality by 40% below the record for 1935. During 1937 alone over two hundred million rubles were spent. The Soviet Union, perhaps too optimistically, hopes to overcome the disease entirely by the end of the third Five Year Plan.

The medical system which is responsible for the brilliant results achieved is an integral part of the socialist system in which medical care is furnished to the people as a public service of the state. The best possible medical and surgical care with all that this involves is the right of every citizen. As the central idea of Soviet medicine is prevention, their system aims to provide the best possible working and living conditions and the greatest possible opportunity for rest and recreation. To this end they have already shortened the working day to a maximum of seven hours and to as little as four in dangerous trades. Their rapid medical progress is due to several factors. Control of the wealth of the country by the workers for their own use, which allows a large budget; ability to plan the protection of health and to use the cooperation of science and industry and of education to prepare the people to accept scientific medicine; and, finally, organization of the whole population to

participate actively in the administration of health. A principle enunciated by Lenin, "The health of the workers is their own responsibility," has encouraged wide participation of the people in their health protection. Dr. H. E. Sigerist, in his important book, "Socialized Medicine in the Soviet Union", compares the Soviet Health System to a pyramid with the widest possible base composed of active health organizations of the people themselves, with the Commissariats of Health at the top. All medical activities, preventive and curative, medical training of doctors, and health training of the people, also the industries producing medical equipment and supplies, all is under the control of the Commissariats of Public Health. Aiding them is the Medical Scientific Council, a body of about 120 eminent medical scientists who guide and coordinate the medical research carried on by 34 central research institutes employing over 8,000 scientific workers.

Medical service is financed from the budgets of the Union, from those of the several Republics and by local budgets. Industrial enterprises pay the social insurance of the workers. The public health budget has rapidly increased with the prosperity of the country and in 1937 reached \$7,528,146,000 rubles. It will be more this year.

In 1913, in the territory now U. S. S. R., there were 19,800 physicians. This number has been increased to over 100,000 and is still inadequate. Each Five Year Plan includes a material increase in their number and equipment. There were 13 medical schools in 1913; there are now 51, with at least one in each Minority Republic. Physicians are among the best paid Soviet citizens and their salaries are rapidly increasing. All extra services, consultations, lectures, contributions to journals, etc., are well paid. Their day is from 6 to 4 hours, with every sixth day free. Medical education and equipment is without expense, with a salary for medical students as for all other college students. Appointments are assured, choice of position being given according to quality of work. All Soviet physicians are connected with some institution: hospital, polyclinic or sanatorium. All have access to a laboratory. All physicians are encouraged to take three or four months postgraduate work every three years. This is on salary and without expense. Medical workers are organized in a

union which has for its aims improvement of working and living conditions of its members, advancement of their professional interests, and cooperation in local and national health plans. One activity of the union and its branches has been the establishment for the members of attractive club houses in and near many of the cities. Rest homes for scientists and doctors are provided by the Commissariats of Health. Soviet physicians receive full social insurance without contributions. This insurance guarantees vacations of one to two months and sick leaves, both on pay, old age pensions, etc. The pension begins at 55 for women and 60 for men and consists of 50 to 55% of the former salary. Physicians may continue to work if they wish while receiving pensions.

That inadequacies still exist in Soviet medical equipment and training no one recognizes more keenly than their medical leaders themselves. They see these limitations as a heritage from a dark past. They have confidence in their system and themselves, and with engaging calmness and enthusiasm push forward to the future.



### RADIUM SUPPLY IN THE UNITED STATES

From a survey of leading hospitals and medical institutions from New York City to Minneapolis and St. Louis conducted by the Eldorado Radium Corporation it is believed that more than double the present supply of radium is needed for the treatment of cancer in this country. Many larger communities showed either a complete lack of radium in their hospitals or a very small supply, adequate only for limited use.

The largest single radium holder is Pellevue Hospital, New York City, with 9½ grams. Memorial Hospital in the same city is second with 8.9 grams. Present commercial sources of radium throughout the world are limited to two, the Eldorado mines in Canada and the Belgian Congo mines in Africa. Eldorado, believed to be the greatest producer today, mines and refines about 5 grams a month. (1,000,000 pounds of Canadian ore produce 1 gram of radium.) The current price of radium is \$25,000 a gram.



# Treatment of the Menopause\*

EMIL NOVAK, M.D., Baltimore

The menopause must be treated as an essentially normal phenomenon. Disturbing symptoms are more frequent at this period than at the onset of menstruation but still only effect a small percentage of women. Often symptoms occurring at the time of the menopause are wrongfully attributed to this cause. Vasomotor symptoms such as hot flashes, sweats and flushes, are characteristic disturbances generally thought to be due to the waning function of the ovaries, or, less probably, to excess function of the pituitary. It must not be forgotten that they also occur in hyperthyroidism and "vasomotor instability". Little is known of the mechanism in the menopause, but there is considerable evidence to indicate control from cerebral sexual centers.

In the menopause there is usually an initial excess of follicular hormone in the blood, sometimes accompanied by excessive menstruation. Later a deficiency of this hormone is found, and it is at this period that vasomotor symptoms occur. In the post-menopausal period, a large amount of pituitary gonadotropic hormone (mostly follicle-ripening but some luteinizing hormone as well) is found in the blood as in younger individuals after castration. The administration of estrogonic hormone to alleviate the vasomotor symptoms is logical and has been found helpful in a large proportion of cases.

The numerous other symptoms of women passing through the menopause such as irritability, vertigo, insomnia and so forth, cannot be considered as of direct hormonal causation at present, but must nevertheless be treated as well as the vasomotor symptoms. The woman passing through the menopause, not the menopausal symptoms, must be the object of therapy.

For thirty years or more ovarian substances have been given by mouth without unanimity of results. They are now known to be inert. Effective parenteral preparations are now available, but neither the mechanism of action nor the

site of destruction are known. The dosage is not clear, but is probably subject to great individual variation. Theelin (Parke Davis), Amniotin (Squibb), or Progynon (Schering) are all adequate extracts which have also been found effective perorally in amounts eight to ten times the parenteral dose. When given intramuscularly 2,500 to 5,000 units should be injected to start, every three days. If not effective, doses up to 50,000 units or more may be given without adverse effects. Treatment is usually necessary only to tide the patient over the most distressing period, not throughout the entire menopause.

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## SYMPOSIUM ON MENOPAUSE\*\*

Summary of answers by Dr. Emil Novak to questions asked by the audience:-

### The therapy of chronic cystic mastitis

Artificial menopause is only a little more likely than the spontaneous to produce disturbing symptoms.

The therapy of chronic cystic mastitis is in a very confused state at present. Oral ovarian residue is known to be inert. Theelin is sometimes said to be effective but not in the speaker's experience. The rationale of theelin therapy is not at all clear since the disease is said to be accompanied by excessive theelin. Progestin sometimes gives satisfactory results but the use of large doses is perhaps not desirable because of a possible influence on the future development of carcinoma.

The dosage of theelin depends on the individual case. Usually if three injections of a small dose in the first week are ineffective, the dose is stepped up more or less rapidly.

Antuitrin S produces no change in the pattern of human endometrium since there is no effect on the ovary. Sometimes functional bleeding is very dramatically arrested by Antuitrin S,— an

\*Abstract of address before 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.

\*\*From 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.



effect which is perhaps due to a hemostatic, not a luteinizing principle. Both Antuitrin S and progestin work better in young women, therefore X-ray or radium (rather than hysterectomy) are the methods of choice in older women. Much larger doses of theelin are necessary to bring about changes in the uterus than in the vagina.

Estrogenic substances are often carcinogenic in those organs under the influence of estrin, and not necessarily in animals already predisposed to cancer.

The treatment of pruritus vulvae at the menopause with X-ray is very disappointing. The condition is usually associated with atrophic changes and often responds to estrogenic substance.

The treatment of primary amenorrhea is still obscure. Usually the thyroid, gonads or pituitary is involved but both the endocrine and histological pictures vary enormously. There may be premature menopause, deficiency of gonadotropic hormone suggesting pituitary deficiency, hypo- or hyperplasia of the endometrium, or there may be a normal ovulatory cycle without bleeding.

The commercial preparations of pituitary hormones are as yet unsatisfactory. The urine of pregnant horses at certain stages yields a follicle-ripening hormone which seems very promising but is not yet on the market.

Asthma occurring for the first time during the menopause is likely to be an expression of a latent allergic tendency brought to the surface for the first time. There are undoubtedly some menstrual disorders on an allergic basis, such as the case of a woman who was allergic to her own menstrual blood, but by no means is the allergic basis so widespread as some authors have attempted to show.

There is no intrinsic hormonal activity of the endometrium, but there is a co-ordination of its function with the ovaries.

Dr. Eugen Kahn of Yale Medical School and the Department of Psychiatry in the Institute of Human Relations discussed the psychiatric problems arising from the menopause. He stressed the folk-lore surrounding this period and how it influences the attitude of the woman. Many mental symptoms, such as involutional melancholia, are often wrongfully attributed to the

menopause. It is of the greatest importance for physicians to treat the woman going through the menopause rather than the symptoms peculiar to the period.

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#### AMERICAN BOARD OF OPHTHALMOLOGY

The American Board of Ophthalmology announces that in 1938 it will hold examinations in:

San Francisco, June 13th, during the American Medical Association.

Washington, D. C., Oct. 8th, during the American Academy of O. and O. L.

Oklahoma City, Nov. 14th, during the Southern Medical Association.

**IMPORTANT:** Applications should be filed immediately. Required number of case reports must be filed at least sixty days prior to date of examination. Application blanks can be procured from:

Dr. John Green, 3720 Washington Ave., St. Louis, Mo.

Up to the end of 1937, the Board has held fifty-six examinations and had certified 1,498 ophthalmologists. The Board on January 1st, 1938, issued a new and complete list of physicians certified to date, arranged geographically. This list was mailed gratis to all certificated persons and to over two hundred and fifty hospitals and institutions.

During 1937, examinations were held at Los Angeles on January twenty-third, at Philadelphia on June seventh, and at Chicago on October eighth and ninth. At these examinations 25, 71, and 84 candidates respectively were examined; of whom 19, 42 and 56 respectively were passed; 3, 17, and 25 respectively were conditioned; and 3, 2, and 1 respectively failed.

The American Board of Ophthalmology has established a Preparatory Group of prospective candidates for its certificate. The purpose of this Group is to furnish such information and advice to physicians who are studying or about to study ophthalmology as may render them acceptable for examination and certification after they have fulfilled the necessary requirements. Any graduate or undergraduate of an approved medical school may make application for membership in this Group. Upon acceptance of the application, information will be sent concerning the ethical and educational requirements, and advice to members of the Group will be available through preceptors who are members or associates of the Board. Members of the Group will be required to submit annually a summarized record of their activities.

The fee for membership in the Preparatory Group is ten dollars, but this amount will be deducted from the fifty dollars ultimately required of every candidate for examination and certification. For sufficient reason, a member of the Preparatory Group may be dropped by vote of the Board.

In future issues of the directory of the American Medical Association certificated ophthalmologists will be so designated in their listing.

# Hemolytic Streptococcic Meningitis With Recovery: A Case Report

C. C. TAYLOR, M.D. — C. V. CALVIN, M.D.  
Bridgeport, Connecticut

In view of the widespread interest in sulphanilamide and its value in the treatment of streptococcic meningitis, we present the following case. To us it is unusual because of the length of time it took the spinal fluid to return to normal, the completeness of the recovery, and the amount of the drug administered.

L. G., a white girl, four years of age, was admitted to the Bridgeport Hospital on May 22, 1937.

Three and a half weeks before admission she had complained of pain in the right ear, which the mother treated with camphorated oil. The ear did not discharge and the pain subsided, but she was weak, easily fatigued, and had no appetite.

Three days before admission she visited a local physician because of these symptoms. He reported "no aural discharge, but a clot on the drum". There was no dizziness, visual disturbance, nausea or vomiting. The next day she complained of a severe headache which persisted and for which she was brought to the Hospital.

Physical examination revealed a well-developed, poorly nourished white female child lying quietly in bed, conscious, rational, but at times not co-operative. There was some photophobia, face was flushed, skin warm and dry, no petechiae. Neck was somewhat stiff, but patient could bend it. Pupils were equal and reacted. Abdominal reflexes were present and equal, knee jerks were not obtained. There was a bilateral Babinski and Kernig, no ankle clonus.

The rest of the physical examination, including the ears, was essentially negative.

Temperature, 103. Pulse, 120. Respiration, 30.

A spinal tap that afternoon (May 22) showed fluid under pressure, turbid, with some flocculation. 25.0 cc. of antimeningococcic serum was administered and the dose repeated seven hours later.

May 23, 1937, the patient's condition was worse. T 104, P 160, R 30. She lay on the right side with the thighs and knees tensely flexed. A spinal tap was done and the administration of prontosil and prontosil begun. Streptococcus hemolyticus in fluid.

May 24. Patient was extremely ill. Head retracted, neck rigid, pupils widely dilated and rigid.

May 25. Spinal tap.

May 26. Condition remained almost unchanged for 48 hours, but this day the pupils reacted very slightly and the patient seemed to understand simple commands, but could not or did not speak.

May 27. Otologist opened right ear and noted, "if any relation between ears and meningitis surgical indications met by opening right O M P A." Culture from ear showed a gram positive staphylococcus. Head somewhat less retracted. Spinal tap.

May 28. The child seemed a little better and brighter. Neck still fairly rigid. She did not speak, but did follow simple directions.

May 29. Condition unchanged.

June 2. The neck was much less rigid. There was a slight internal strabismus, more marked on the left.

June 3. There was slight cyanosis.

June 7. The child had been gaining steadily. She was mentally clear and fairly co-operative. She answered questions by nodding or shaking her head, and turned over or sat up with some slight assistance. The strabismus was less marked and there was no other apparent nerve involvement. The cyanosis had disappeared.

June 11. The patient was greatly improved. The temperature had been normal for forty-eight hours for the first time. The hearing and vision were good. The strabismus on the right had disappeared and there was less on the left. The stiffness of the neck had practically disappeared.

July 8. Improvement had been steady and patient was asymptomatic and had remained afebrile. The spinal fluid count was fifty, and she was discharged to return in ten days.

July 20. Patient was in a fairly good state of nutrition and was bright and alert. No muscular spasm, rigidity, or paralysis could be made out. The strabismus had cleared up. Spinal fluid count, six.

## Sulphanilamide Administration

On May 23rd treatment with prontosil and prontosil was started. An initial dose of  $2\frac{1}{2}$  cc. prontosil was given intramuscularly, and 5 cc. every four hours for twelve doses ( $62\frac{1}{2}$  cc.) and then 5 cc. twice a day for eight doses (40 cc.). Prontosil was given in 5 grain doses every four hours for six days (180 grains).

On May 29th prontosil was discontinued and the dosage of prontosil increased to 50 grains a day, following a telephone conversation with Dr. Perrin H. Long of Baltimore. Sodium bicarbonate was given in equal amounts with the prontosil (125 grains total).

On June first the dosage was decreased to 30 grains a day for two days (60 grains), and on June 3rd to 20 grains a day until July 8th (720 grains).

On June 3rd the patient had a slight cyanosis. Her clinical condition was improving, but the spinal fluid still



showed an increase of cells to 670 and we did not further reduce the dosage.

During her stay in the Hospital (48 days) the patient received 62½ cc. of prontosil and 1085 grains, or approximately 2¼ ounces, of prontylin.

#### Spinal Fluid Findings

	<i>Culture</i>	<i>Cells</i>	<i>Globulin</i>	<i>Appearance</i>
May 23	Pos.	5000?	4 plus	Turbid
May 25	Pos.	4350	4 plus	Turbid
May 27	Neg.	970	4 plus	Cloudy
May 31	Neg.	1386	2 plus	Cloudy
June 2	Neg.	670	—	—
June 3	Neg.	—	—	—
June 5	Neg.	—	—	—
June 7	Neg.	—	—	—
June 11	Neg.	229	Trace	Hazy
June 22	Neg.	132	Trace	Opalescent
June 29	Neg.	63	0	Clear
July 4	Neg.	52	0	Clear
July 20	Neg.	6	0	Clear

#### Blood

	<i>Hgb.</i>	<i>RBC</i>	<i>WBC</i>	<i>Differential</i>
May 23	63 Sahli	4,760,000	22,800	Polys, 98
June 11	78 Sahli	4,620,000	9,800	Polys, 63, SL 23
June 23	78 Sahli	4,880,000	11,650	Polys, 62, SL 25
July 7	73 Sahli	4,650,000	12,250	Polys, 63, SL 24
July 19	70 Sahli	5,110,000	8,400	Polys, 58, SL 24

#### Summary

We present a case of hemolytic streptococcic meningitis with complete recovery.

It took approximately eight weeks for the spinal fluid to return to normal.

During that time the patient received 62.5 cc. of prontosil and 2.26 ounces of prontylin.

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## Correction

809 State Street,  
New Haven, Conn.  
Jan. 24, 1938.

Dr. Stanley B. Weld, Editor,  
Journal of the Connecticut State Medical Society,  
Hartford, Conn.

Dear Dr. Weld:

In my paper on "Treatment of Acute Appendicitis in Infancy and Childhood" in January issue of the Journal of the Connecticut State Medical Society there are two errors that I wish to have corrected in the forthcoming issue of the Journal.

On page 30 first paragraph,—Trendelenburg position, should read, Fowler's position.

Under References: Farr and Brakely. Surg. Clin. N. Amer., Oct. 1928.

Thanking you for your favor,

Truly yours,

PETER J. SERAFIN, M.D.

## COMMITTEE OF 20

The Special Meeting of the House of Delegates of The Connecticut State Medical Society held on January 19, in New Haven directed the Council to appoint a Committee of 20 to inquire into the subject of the Distribution of Medical Care and to present proposals for the improvement and the distribution of medical care to the House of Delegates at its Annual Meeting in May. The following committee was appointed:

*Chairman*, George Blumer, New Haven.

Fairfield County:

D. C. Brown, Danbury; D. P. Griffin, Bridgeport; D. C. Patterson, Bridgeport; J. L. Vickers, Greenwich.

Hartford County:

G. W. Dunn, New Britain; A. B. Landry, Hartford; M. T. Root, West Hartford; B. N. Whipple, Bristol.

Litchfield County:

W. B. Walker, Cornwall; W. B. Wersebe, Washington.

Middlesex County:

C. C. Harvey, Middletown; H. S. Frank, Middletown.

New Haven County:

G. Blumer, New Haven; M. J. Lawlor, Waterbury; T. P. Murdock, Meriden; L. H. Nahum, New Haven.

New London County:

A. Labensky, New London; L. F. LaPierre, Norwich.

Tolland County:

E. H. Metcalf, Rockville.

Windham County:

K. T. Phillips, Putnam.

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The medical staff of the Menninger Clinic will conduct its fourth annual Postgraduate Course on *Neuropsychiatry in General Practice*, April 25 to 30, inclusive, at the Menninger Clinic, Topeka, Kansas. The course this year will include a brief introduction to the fields of neurology and psychiatry and a specific application of this knowledge to the large group of cases of psychoneuroses, psychoses and psychogenic and neurological disorders which every physician meets in his daily practice. Suggestions made by those who took the course last year have been embodied in this year's program in order to make it applicable to the most common practical problems of the physician.

As in previous years, several guest speakers, prominent in the fields of neurology and psychiatry, will appear at the evening sessions of the course.

# Some Remarks on the Operative Treatment of Glaucoma<sup>\*</sup>

DAVID H. WEBSTER, M.D., New York City

For congestive glaucoma which we usually see only in an acute form, occasionally during the premonitory stage, an iridectomy has always proved satisfactory, providing the technique was not faulty, or that the lens capsule did not rupture from the sudden reduction of intra-ocular tension.

In congestive glaucoma it is not a choice of operation but of technique. For many years I followed the approved method: Entered the sclera with the tip of a keratome 3 mm. back of the limbus, made a shelving incision and hoped to see the tip of the keratome presenting in the anterior chamber. With a hazy cornea, a swollen conjunctiva, the lens and ciliary body pushed forward, and with the iris against the pectinate ligament making the anterior chamber an imaginary space, the operator needed consummate skill and trust in a divine guidance. These difficulties are now mostly obviated by following the method popularized by Salsman of iridectomy ab-externo. The technique is simple: the instillation of a local anesthetic, a retrobulbar injection of 1 c.c. of procaine hydrochloride (novocain) using a 3½ c.m. needle, usually makes the operation painless. The patient may complain of the suture in the superior rectus, or the first incision in the conjunctiva, but otherwise does not object. A conjunctival flap is turned down as in trephining only it is not necessary to go beyond the limbus. The conjunctival flap is held down and using a keratome inverted an incision 5 mm. long is made tangential to the cornea and between 1 and 1½ mm. behind it. This incision is not made with one bold stroke but by a succession of gentle sweeps, sponging after each gentle touch. Not all scleras have the same thickness. With a suture in the superior rectus, and the flap held down with forceps the edges of the wound separate making it easy to see the first escape of aqueous. Thus the reduc-

tion of tension is gradual, lessening the danger of rupture of the lens capsule, dislocation forward of the ciliary body or intra-ocular hemorrhage. The iris shows up as a dark band and gentle pressure with a spatula on the upper lip of the wound allows a bead of iris to present. This iris is grasped with the forceps and instead of pulling upward as is necessary in the regular iridectomy, it is pulled gently forward and downward and with the scissors pressed against the sclera the iris is cut. The pillars slide back into place with a few strokes of the spatula on the cornea, the flap is sutured and atropin instilled. In my last fourteen cases of congestive glaucoma I have used this method. In two cases seen in the prodromal stage I was able to preserve the pupillary fibres.

For non-inflammatory glaucoma many operations with multitudinous modifications have been devised, all with the same object, that is, to restore to normal the equilibrium of pressure. There are three paths by which this may be attempted:

1. The filtering cicatrix which is an out flow into the sub-conjunctival space. For this I employ either trephining or iridencleisis.
2. By increasing elimination through the canal of Schlemm by iridectomy.
3. By new drainage into the sub-choroidal space, by cyclodialysis or a combination of the last two methods, that is, a cyclodialysis combined with iridectomy.

In my experience the best all round operation for non-inflammatory glaucoma is trephine. The average case is done easily especially when the diagnosis is made early. You are all so familiar with its technique that it needs no comment from me. There are a few points which we should keep uppermost in mind — that it is only 1½ mm. from the limbus to the ciliary body, that unless the cornea is split a 2 mm. trephine is liable to injure the ciliary body, that when the

<sup>\*</sup>Read before the Eye, Ear, Nose and Throat Section, Connecticut State Medical Society, Westport, September, 1937.



iris does not present upon removing the sclero-corneal button, it is good surgery to close the flap and wait for a day or so when the iris will bulge into the wound and the operation carried to a successful completion. I have had to do this on more than one occasion, the first time about seven years ago and in a doctor's family. Sometimes it happens that after some months following successful trephine the filtering ceases. This seems to be due to the density of the scar closing of the sub-conjunctival space. I have succeeded on three separate occasions in restoring the filtration by passing a knife needle under the conjunctiva and into the outer margin of the scleral opening.

In glaucomatous eyes complicated with cataract I prefer an iridectomy ab-externo, and later a cyclodialysis if necessary. I have on several occasions lost, through a low-grade cyclitis, following cataract extraction, eyes which had been successfully trephined. The cataract operations seemed perfect, and I did not understand why, until A. Fuchs pointed out that a process of the ciliary body probably prolapsed into the trephine opening, and that in making my incision I cut it.

Up to the present time I have had no personal experience with Otto Barkan's Goniotomy, incision of Schlemm's canal. I am planning to try this as soon as I can get the proper equipment.

As I employ iridencleisis only in young people, my experience has been confined to three cases, all bilateral: two young adults, one in which cyclodialysis had failed, and one case of infantile glaucoma in a child seven months old. My previous experience with two cases of infantile glaucoma in which I did repeated trephines had not been very satisfactory.

There are some cases, especially in the very old and those in which the disease has been under treatment with miotics for a long time, cases where the iris is adherent to the pectinate ligament and to the posterior surface of the cornea which, in my experience, do not well under trephining. As the trephine is made over the adherent iris, only that portion of the iris adherent to the button is removed. The result is a closure of the trephine opening in a few weeks or months. In these cases I do a cyclodialysis with iridectomy. The only difficulty is, in making the keratome incision after the aqueous has escaped into the sub-choroidal space, as the eye is softer than

normal, sometimes you find resistance just as the spatula passes the ciliary body. This is probably due to adhesions of the iris to the pectinate ligament just anterior to the scleral spur, or that you are behind descemet's membrane. I have a very healthy respect for the ciliary body. When we consider that the ciliary body is 5 mm. long and  $1\frac{1}{2}$  mm. behind the limbus we realize the necessity of making our cyclodialysis incision between 7 and 9 mm. back of the limbus. This operation is very satisfactory in glaucoma in aphakic eyes. Shortly after Wootton introduced this procedure at the Manhattan Eye, Ear and Throat Hospital in 1932 I had occasion to try it out on a primary glaucoma in an eye upon which a successful extra-capsular extraction had been done in 1930. The result was so gratifying that it is my operation of choice in all aphakic eyes. Then there are some very old people in which the iris is so atrophic that operation simply hastens the degenerative process. I refer especially to those who have been under miotics for years and have put off operation as long as any elasticity exists in the iris and till vision is reduced to 3 or 4/200, or in which the field is cut down to within a few degrees of central fixation. These are best left alone. I am an advocate of early operation.



#### ATTENTION GOLFERS!

A five and one-half days' ocean voyage from New York to New Orleans on the \$2,500,000 S. S. Dixie starts off the "Golfers Special" on a delightful trip to San Francisco for the American Medical Association Meeting next June. Sponsored by the American Medical Golfing Association, the Special will feature six games of golf on the trip to the coast and include sightseeing stops in New Orleans, Houston, Galveston, San Antonio, Los Angeles, and Del Monte.

The twenty-fourth Tournament of the American Medical Golfing Association will be held in San Francisco at the luxurious Golf and Country Club on Monday, June 13, 1938. This is a thirty-six hole annual competition.

On the return journey of the "Golfers Special" through Portland, Seattle, Vancouver, Lake Louise and Banff, two games of golf and an all-day boat trip up Puget Sound will be enjoyed.

Non-golfers as well as medical golfers, and their ladies, will be welcome on the Golfers Special. The all-inclusive summer rate on the Special train will include air-conditioned de-luxe Pullmans, with compartments and drawing rooms only.

For full particulars on the Golfers Special, and on the A. M. G. A. tournament in San Francisco, write the President of the A. M. G. A., Dr. Walt P. Conway, 1723 Pacific Avenue, Atlantic City, New Jersey; or Bill Burns, Executive Secretary, 731 N. Capitol Avenue, Lansing, Michigan.

# How Sick Are We?

CREIGHTON BARKER, M.D., Administrative Secretary

Any proposals for the revision and improvement of the distribution of medical care must include a thorough understanding of two fundamentals: 1. The gross need for medical care based upon the amount of illness. 2. The amount and quality of medical service required to provide adequate medical care for such illness. The latter is not easily determined for there will never be complete agreement as to what constitutes "adequate" medical care, indeed we wisely come to a standard of "acceptable" medical care that will not always be complete. The gross need based upon sickness incidence is however open to reasonably accurate mathematical measurement and great progress in this connection has recently been made.

There have been many studies of morbidity, notably the special analyses made by the Metropolitan Life Insurance Company; the interesting approach to the problem through the family physician made by the Commission on Medical Education; the Hagerstown study by the United States Public Health Service and the varied but not always conclusive surveys made by the late Committee on the Costs of Medical Care. Now comes the National Health Survey made by the Public Health Service, preliminary reports of which recently have become available.

The National Health Survey is the most extensive study ever made in America and included the lengthy questioning of three-quarters of a million families including 2,660,000 individuals living in 84 cities in 19 states and 23 rural communities. The geographic distribution of the survey sample corresponded very closely to the urban population in the 1930 census. The data were collected in the autumn and winter of 1935-36 and may be taken to reflect conditions on an average winter day.

On that average winter day there were, in the United States, six million people unable to work or pursue other usual activities because of illness, injury or physical impairment. Based upon this figure there will be 200 persons sick each day in a

town of 5000 people, 4500 in a city of 100,000 and 22,000 in a city of half a million. The incidence of sickness varies widely with age, one in eight persons over sixty-five will be incapacitated on any given day while in the age group between fifteen and twenty-four the proportion is only one in forty. In childhood, under fifteen, the proportion is about the same as in the working ages twenty-five to sixty-four.

Of the six million people who are disabled two and a half million are incapacitated by chronic illness such as rheumatism, cardio-vascular disease, nephritis, tuberculosis, diabetes, asthma and permanent impairments due to previous disease or accident. One and a half million will be confined by respiratory diseases, influenza, grippe, pneumonia and tonsillitis. Injuries and accidents will account for one-half million disabilities on an average day and acute infections will incapacitate another quarter of a million, mostly children, and another quarter of a million will be disabled by acute diseases of the gastrointestinal tract including appendicitis.

Illnesses which disabled for one week occurred at a rate of 172 per thousand persons for the twelve months preceding the survey date. Applied to the population of the country as a whole, this gives an estimated total of 22 million illnesses disabling for a week or longer or about sixteen such illnesses for every death in the country in 1935. This figure is to be considered as a minimum since illness of less than a week is not included. On this basis, in a town of 5,000 there will be every year 800 cases of illness lasting a week or longer, 17,000 in a city of 100,000 and 8,600 in a city of half a million.

The survey shows that the average child under fifteen will be disabled just less than a week per year, the frequency of illness in childhood is high but the duration short as compared to adults. The average old person is disabled nearly five weeks annually, the result of both high frequency and long duration. Adults are disabled

*(Continued on Page 155)*



# Presidents' Proscenium

## Socialized Medicine and Health Insurance

O. J. T. JOHNSON, M.D.

President Arkansas Medical Society

A subject which is being discussed at this time and which is of great interest to the medical profession is Socialized Medicine and Health Insurance. Some of the dangers of State Medicine and Health Insurance are due to political control. Who wishes to have a clerk dictate what shall be the treatment of a patient and at the same time permit this clerk to have access to the physician's case records? Why should a politician be in a position to tell a person whom the latter must select as his physician, when he may be sick or when he may have an operation? Under such a regime the physician naturally will lose interest for he will be obliged to see just so many patients each day and will receive the same remuneration regardless of the work done. This is unfair to the patient, disheartening to the doctor and destructive to the proper practice of medicine.

Health Insurance, as with State Medicine, placed in the hands of a lay board or commission, means that this vast project is entrusted to people wholly unfit for the task and unfamiliar with its problems. Such organization soon becomes a political power and when benefits are distributed to individuals through an extensive administrative group with numerous employees, the combination quickly becomes a powerful political machine, and the natural result advances the directorial body in power, but always depreciates the quality of medical service. Restrictions in scientific practice when imposed by lay administrations benefit the politics of the organization rather than the patient. The patient malingers, or is suspected of it, and his feelings are hurt by the inquiry or antagonized by the discovery. Sickness insurance creates neuroses and prevents their proper and efficient

treatment. The greed to get something back for money spent is always present among the insured and urges them to seek aid. Prescriptions, expensive and often unnecessary, are regularly demanded and either the patient is served or the doctor criticized.

### Who Wants Socialized or State Medicine?

**Not the Public.** The public in general finds no real dissatisfaction with the kind of medical service it is receiving.

**Not the Patient.** If ever a human being wants to be an individual it is when he is sick. He does not want an inferior quality of medical service.

**Not the Farmer.** He cannot see why it should be necessary for the state to provide medical care for the reasonably independent or why the state should pay the bill for many self-inflicted diseases such as those occasioned by alcoholism or immorality.

**Not the Employed.** The employed person does not want socialized medicine because he recognizes that it means less wages and more taxes.

**Not the Tax Payer.** The tax payer knows any free service or commodity is abused by many who seek to obtain more than their just share, thus increasing the cost.

**Not the Physician.** The physician does not want the noblest of professions to become a political football with favoritism and patronage resulting in slip shod diagnoses and neglected treatment of patients.

### But the Following Do Want Socialized or State Medicine!

**Profit Seekers.** Such as insurance carriers, lodges, and the friendly society who seek after

personal profits would gain from the by-products of a system of socialized medicine. All of these would take on new activity and have more tax supported employees. A very small group of physicians maintaining friendship with unscrupulous politicians would share the spoils.

**Paid Reformers.** The paid reformer is ever seeking a panacea for poverty. In socialized medicine he visions a new cure and refuses to admit the probability of a failure. Unscrupulous politicians would furnish the opportunity to let out building contracts for large public hospitals, health clinics, etc., at great cost. Big money would be paid for stone and mortar and little or none for preventative medicine.

**Indigent Patients.** The medical profession never has failed in its ideals of medical care for all, rich and poor alike. The ideals of mutual responsibility between doctor and patient and willingness to do the utmost in providing all that can be provided for the sick still remain among the accepted principles of American Medicine.

Histories of all countries having State Medicine show a decline from a medical standpoint. I dare say there are certain restricted fields of medicine whose confines the legislative hand could work productively, but the value of the human touch in medicine is something that transcends all legislation. What state controlled or organized social program can hope to substitute the human bond that exists between the family doctor and his patient?

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#### TYPHUS FEVER IN TENNESSEE

From Tennessee comes the report that endemic typhus fever is on the increase in some of the southern states. The disease has reached mild epidemic proportions in localized areas in Alabama and Georgia during recent years. Tennessee reported 21 cases during 1937.—*Jour. Tenn. State Med. Assoc.*, Jan., 1938.

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#### KENTUCKY AND THE SANITARY PRIVY

During a period of Federal cooperation Kentucky has been able to improve its sanitary conditions throughout the State. Sewerage systems have been installed, septic tanks constructed, but, most striking of all, a grand total of 49,530 standard concrete slab and riser privies have been substituted for the old wooden type.—*Ky. Bull. Dept. Health*, Jan., 1938.

#### SIGHT SEEING OPPORTUNITIES TO AND FROM THE A. M. A. CONVENTION

A special train has been arranged for physicians attending the American Medical Association Convention at San Francisco in June. Leaving Chicago on Monday, June 6, where an American Express Company escort will join the group, the tour will include a motor coach visit to the Indian Pueblo district near Lamy, New Mexico, a visit to Santa Fe, Tesuque, Puye and Santa Clara Pueblo. The following day the train will arrive at the Grand Canyon where in the morning a drive has been arranged over the famous Hermit Rim Road skirting the edge of the chasm. In the afternoon there will be a tour over the Desert View Road through the Tusayan National Forest and along the Canyon's rim, with a stop at the Yavapai Point Observation Station for a short lecture by the Park Naturalist, and ending at the Watch Tower, a re-creation of the ancient towers erected by the prehistoric inhabitants of that section. Los Angeles, including the Spanish Quarter, Chinatown and the suburb of Pasadena, will be visited next. A side trip to the fruit orchards and Mission Inn of Riverside and a sail to Santa Catalina Island are scheduled.

The return trip may be made over either of two routes. Route 1 will include a visit to Portland, Oregon, with a drive along the Columbia River Highway, Seattle, a trip by steamer to Victoria and Vancouver, by train to Lake Louise in the Canadian Rockies, with drives to Moraine Lake, the Valley of Ten Peaks, Johnson Canyon and Banff will follow in order. Route 2 will include a 3½ day tour of Yellowstone National Park, a visit to Salt Lake City, a stop at Colorado Springs, trips to the summit of Pikes Peak, to the Garden of the Gods, to Seven Falls, and a 56 mile tour of Denver Mountain Parks from the city of Denver.

The American Express Company has been appointed transportation agent and the business details of the entire trip are in its hands. More than 25 state medical societies have cooperated in making possible the arrangements of this special train tour. This unusual opportunity is open to any physician, his family and friends, who plan to visit San Francisco for the forthcoming convention.



# Association of Connecticut Tumor Clinics

## Seventh Meeting of the Association Held at Norwalk Hospital, Norwalk, December 15, 1937

Dr. Charles L. Larkin, the chairman, complimented the association for the speed and efficiency with which its aims, namely, the state-wide standardization for therapy, records, and pathological nomenclature, are being accomplished. He further stressed that the papers read at the association meetings must be given by local doctors and based on records and results obtained in their own clinics.

Dr. William B. Stone, Director of the Tumor Conferences which are held twice a month at the Norwalk Hospital, gave a brief summary of the cancer work performed at that institution. For the three years following the institution of the conferences in May 1934, 186 cancer cases were seen in the clinic. Skin cancer occurred in 41 cases, breast in 25, uterus in 14, stomach and rectum in 6 each, all other types composing the remainder. Dr. Stone felt that breast cancers responded well to deep X-ray therapy and that as a general rule women under 40 should not be subjected to operation for breast carcinoma. Adequate X-ray study of chest and skeleton were stressed to determine operability. Of the six stomach cases, five were inoperable and one was living three years apparently free of disease, after gastric resection. The importance of adequate rectal examination in cases complaining of hemorrhoids was stressed. Ten cases of carcinoma of the lung were encountered. The fact that 50% were radiosensitive and that lobectomy offered a high percentage of cures in early cases was brought out. Two cases of Ewing's tumor had done well under radiation therapy. In closing Dr. Stone stressed the fact that some financial aid is needed by all the tumor clinics if they are to provide adequate X-ray service for treatment and diagnostic purposes. It is only by such service that earlier diagnosis of cancer can be made and the mortality lowered, and terminal cases relieved of their suffering.

Dr. A. W. Oughterson, of New Haven, stressed the importance of complete records, and outlined the plans of the therapy committee. In carcinoma of the lung lobectomy should have a mortality of only 10%. The difficulty is early diagnosis, which can be improved by more frequent use of X-ray, bronchoscopy, and lipiodol injections.

Dr. Daniel Patterson, of Bridgeport, remarked that there was no uniformity of opinion as to the value of preoperative as compared to post-operative irradiation in the management of breast carcinoma. His personal feeling was that surgery followed by irradiation was the better procedure. Routine physical examinations with removal and biopsy of every unusual lump should increase the number of early breast carcinomas found. Digital examination in all cases complaining of hemorrhoids was again stressed.

Dr. Clyde Deming, of New Haven, commenting on Dr. Fawcett's paper, said he doubted if trauma was an etiological factor in causing embryonal carcinoma of the testis. In regard to treatment, X-ray before excision was regarded as a waste of time, and postoperative irradiation was of value only if the tumor was radiosensitive. The Asheim-Zondek test was considered as not always reliable in the determination of metastases.

Dr. Kendall reported that in the eight years experience of the Hartford Hospital Tumor Clinic there had been 18 cases of teratoma of the testis, eight still alive — five for over five years. Those classified as embryonal had done better than the mixed cell type, one of the former having survived for eight years.

Dr. Joseph Collins reported that three of the five cases that had been seen in the Waterbury Hospital Clinic with testicular carcinoma had gynecomastia, in two cases the breast enlargement being the presenting symptom. Urine

prolan determination was advised in all cases presenting gynecomastia. Only one case was living two and a half years after operation.

Dr. E. C. Weise, of Bridgeport, closed the meeting by saying that the next joint meeting of the Association would be held in Hartford on February 24th at the St. Francis Hospital at 4 P.M., with the April meeting to be held at the William Backus Memorial Hospital in Norwich.



## A REPORT OF FOUR CASES OF EMBRYONAL CARCINOMA OF THE TESTES

George G. Fawcett, M.D.  
and William S. Stone, M.D.

The title of this report is used to emphasize the common pathological features of such tumors and their severe malignant qualities. According to Ewing, they represent a one-sided development of a teratoma and are not derived from the adult spermatoblasts. They may be called teratomata, or teratoid tumors. Such tumors are rare, Pack and Lefevre finding they comprised about one per cent of 16,565 malignant tumors admitted to the Memorial Hospital. However, the recognition of their clinical features is important to the general practitioner, because distant metastases often occur early and control the clinical picture of the disease. They also derive an added importance at the present time because the therapeutic use of X-rays have contributed markedly to their palliation and curability.

Case I, age 32, was admitted to this hospital July 5, 1930, with the symptoms of being acutely and seriously ill. He complained of severe pain in the sacroiliac region, which he ascribed to lifting a heavy weight two weeks prior to admission. He experienced dysphagia and severe cyanosis of his face and extremities the day before admission. He also felt some irritation of the throat, but had no cough or pain in his chest. He had some fever and a rapid pulse. The examination revealed only pathological physical signs in the chest, which suggested those of a bronchopneumonia. Four years previously he had an adenocarcinoma of a testicle removed here. The X-ray report of the chest states there are signs of infiltration throughout the lungs, which suggest either a bronchopneumonia, or a metastasis from a malignant tumor, or both. He died the next day after admission. An autopsy showed the following lesions: There was no evidence of tumor tissue within the abdomen, nor was there any gross evidence to account for the sacroiliac pain. In the chest, the heart showed the signs of a severe myocardial degeneration. About the seventh vertebra, there was a tumor

about 12 centimeters long and eight centimeters in diameter. Posteriorly, the mass was deeply grooved by the spinal column, to which it was adherent, but the vertebrae in this neighborhood were not involved. The esophagus ran over this mass in front, and the aorta through it along the left side. There was no fluid in the pleural cavities, but the walls were studded with tumor nodules. Sections of both lungs showed tumor nodules throughout the parenchyma. Microscopically, different types of tissue were found,— areas of cartilage, inclusions of dead squamous epithelium, muscle fibers, lymphoid tissue, round and spindle cells. The conclusion, therefore, was the tumor of the testicle had been a teratoma, and since in most of the nodules, the predominating tissue appeared, at first, to be that of a sarcoma, but later the diagnosis was finally changed to that of a metastatic embryonal carcinoma, representing a one-sided development of a teratoma.

Case II, age 22, was admitted to the hospital December 12, 1931, for pain, redness and swelling of the right scrotum. The history states that eight weeks prior to admission he noted a swelling of the right scrotum, which increased in size slowly without pain or tenderness until the day prior to admission. Upon admission, his pulse was slightly accelerated and the temperature was 100. No pathological signs were noted except a considerable enlargement of the right testicle, which was tender, and the diagnosis of probably some purulent process was made. At the operation, the capsule of the enlarged testicle was incised and a cavity was found filled with gangrenous semi-purulent material. There appeared to be so much destruction of tissue that the entire testicle was removed. The pathological report states the testicle is somewhat enlarged, but its contour is normal. On section a cavity is seen in the center of the testicle, full of very soft necrotic material. The cavity occupies about one-third of the tumor mass. There is a yellow line of demarcation, walling off the necrotic portion. Only a few definite tumor nodules are seen outside of the cavity, but sections show the cavity is lined with dead tumor cells and all parts of the testicle show tumor. Microscopically, the nuclei of the cells are hyperchromatic and many mitotic figures are seen. The stroma contains many foci of lymphocytes. The tumor is evidently a one-sided development of a teratoma, and the diagnosis is an embryonal carcinoma. One cycle of X-ray treatments was applied to abdomen at this time. This patient has apparently remained well and pursued his occupation of a carpenter for six years. He has not returned for a physical examination for a long time. X-ray pictures of the chest were taken yesterday (December 14, 1937) and these were entirely negative.

Case III, age 43, was admitted to the hospital September 1, 1935, for a swelling of the left scrotum, which caused no pain until the day before admission. His history states that eleven months prior to admission he fell in a bath tub, and since then he has noticed an increase in the size of the left scrotum. Upon admission he had slight temperature and acceleration of the pulse. The diagnosis was uncertain. At the operation, no free fluid was found in the sac, and the testicle was found to be enlarged to the size of a small orange. An incision into the tumor showed what appeared to be a diffuse necrosis. The pathological report states the tumor is about five centimeters in diameter, regular in outline and very soft, and edematous. Micro-



scopically, sections show a diffuse mass of large round or polyhedral cells of the embryonic type, marked hyperchromatism of many nuclei, and many mitotic figures. There are many foci of lymphocytes and the stroma is scanty. Blood vessels are normal. There are some multinuclear cells and oedema is marked. The diagnosis is embryonal carcinoma of the testicle. As soon as the pathological diagnosis was received, an examination revealed that above the left inguinal ligament a firm mass was palpated, which consisted evidently of enlarged pelvic nodes metastatic to the primary testicle tumor. The X-ray films of the chest showed no signs of metastasis. A cycle of X-ray treatment was advised, and after a few weeks delay he went to the Memorial Hospital for treatment. Upon admission to that hospital, a supraclavicular node was found. After a month's cycle of X-ray treatment, the tumors had completely regressed, and the patient has remained well without evidence of the disease.

Case IV, age 37, stated that four years prior to admission, he noticed a slight swelling on the right side of his throat, which has slowly increased in size. He noticed that at that time he perspired freely, had palpitation, began to lose weight, has become increasingly nervous, and more recently has dyspnea at times. One year prior to admission, he stated that while driving he injured the scrotum, and several months later he again injured his scrotum while bowling. Since then he has noted that the right scrotum began to swell, and has enlarged to such an extent that recently he has had much discomfort and pain. Upon admission to the hospital, February 6, 1937, he appeared to be profoundly sick. He was extremely nervous and had a rapid pulse without fever, and was somewhat emaciated. The thyroid on the right side was considerably enlarged. The right side of the scrotum contained a very large, smooth, firm, oval-shaped tumor, so large that the normal relations of the external genitals were obliterated. In the upper right abdomen just beneath the liver, there was a large firm mass which was evidently due to enlarged epigastric nodes.

The X-ray films of the chest were negative. The basal metabolism was reported to be plus 30. An Ascheim-Zondak test of the urine was reported to be negative, but the diagnosis was made of a very malignant teratoma of the right testicle with metastases to retroperitoneal nodes in the upper abdomen, and a toxic tumor of the thyroid. It was the opinion of the majority of the consultants, in spite of the metastases, to first remove the scrotal tumor, and then to apply the X-rays to the metastases. Accordingly this was done. There were some difficulties in the removal of the tumor because of the adherence of the lower part of the tumor to the skin of the scrotum, some of which was excised with the tumor.

The pathological report is, as follows: The specimen weighs 1300 grams, and is 17 cm. in length and 10 cm. on its greatest diameter. There is a layer of blood clot about one inch thick between the tunic vaginalis and albugines. The tumor has invaded the epididymis. On section the tumor is soft, white and shows several areas of necrosis. Microscopically, sections show sheets of cells with patches or strands of connective tissue scattered here and there. The stroma contains a moderate number of lymphocytes. The cells are round or polyhedral in shape, have either a

clear or slightly granular cytoplasm, and a very distinct outline and a large nucleus. This is an example of the solid or medullary carcinoma, the so-called large cell testicular tumor. Chevassu and others derive the tumor from the spermatoblasts and call it a Seminoma, and separate it from the teratomas. Ewing's opinion is accepted that this tumor is always a one-sided development (epithelial) of a teratoma and is not derived from adult spermatoblasts and calls it an Embryonal Carcinoma.

The patient had a few moderately stormy days, but recovered sufficiently so that the X-ray treatment of the metastases was begun on the eighth day, and continued almost daily for four weeks.

The abdominal tumor began to regress almost immediately, and at the end of three weeks had disappeared clinically. During this period the patient's general condition improved slowly, but in spite of iodine medication, the toxic symptoms from the thyroid persisted. Two weeks, therefore, after the completion of the X-ray treatment, an operation was performed on the thyroid. A cyst with about one-half of the thyroid tissue of the right lobe was removed. His toxic symptoms disappeared and the improvement in his general condition was rapid and marked. He returned to his home and occupation as salesman in Pittsburgh three weeks later. During the summer he returned for an examination. He was in good general health, had gained markedly in weight, and no evidence of tumor could be discovered.

### Comments

The control of the clinical picture in the first case by the chest metastases, in spite of the history of the removal of a sarcoma of the testicle three years previously, without the aid of the X-ray examination and the autopsy findings, would probably have made an exact diagnosis improbable.

Trauma was ascribed by three of these patients as a cause of the tumor, but, as in malignant disease of other organs, the actual relationship is doubtful, but that a tumor already existing may be traumatized and thus incited to greater growth activity is possible. Dean, in a comprehensive clinical review of 292 patients with testicular tumors, found that in 81 per cent no trauma had occurred. These tumors appear and grow without pain usually for a considerable period. Circulatory disturbance and necrosis are common, and it seems reasonable to conclude that the occurrence of pain begins with such changes. In the second and third cases reported, severe pain began the day before admission to the hospital, and in both cases such changes were found in the tumors, in one case eight weeks, in the other eleven months after the tumors had been discovered. In Dean's series of cases a slightly larger percentage of these tumors

appeared upon the right side, which he thinks may be attributed to the greater number of undescended testes on the right side. The higher percentage of tumors appearing in undescended testicles is well known. In our series, there were two right and two left.

The predilection sites for metastases are the deep pelvic nodes, those around the coeliac axis, retrosternal nodes of the chest, supraclavicular nodes of the neck upon the same side as the tumor. There are no inguinal nodes unless the scrotum is involved. Dean gives convincing evidence that irradiation is of more importance than surgery. He refers to Hinman's five year end results from radical surgery as 17 per cent. Dean gives his own five year results in cases without metastases as 78.5 per cent in which he did a simple orchidectomy after preoperative irradiation. In those cases in which metastases were already apparent, relying upon irradiation alone both for the primary tumor and the metastases, his five year end results in a series of 170 patients, 72 per cent of whom had metastases, were 29 per cent.

Of our own three cases to which both irradiation and simple orchidectomy were applied, one is alive and well six years, another two years, and the other eight months since treatment.

It is to be noted that the metastases from these tumors regress more uniformly and completely than the primary tumor. It is undoubtedly, another example of how metastases may be more embryonal in type than the primary growth, and therefore, more radiosensitive. In this tumor, also, the primary growth may contain more adult tissues, in which the embryonic structure only forms a part of the tumor.

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### HOSPITAL INSURANCE

10,000,000 Americans will have hospital insurance by 1942 at the present rate of growth of this new adjunct to medical care. Most of these will reside in eastern seaboard cities. None of the 35 nonprofit-making associations has as yet failed while some of the 35 single hospital associations have failed. New York City with 500,000 persons with hospital insurance leads all other cities. The results have been advantageous to patients and physicians and have had no ill effect upon the quality of medical care administered.—*Rufus Rorem in Associated Press, October, 25, 1937.*

### FINLAND PROVIDES MATERNITY BENEFITS

Maternity benefits are provided in Finland by a law of September 24, 1937, for Finnish citizens residing in Finland who have a taxable income, or combined taxable income of husband and wife living together, that is below a specified amount (8,000 to 10,000 marks according to locality).

The benefit consists of 450 Finnish marks — at least 2-weeks income for persons who are eligible — for each birth. The money may be used for care of the child if the mother dies before the benefit is paid.

Application for the benefit must be made within 4 months from the date of the birth to the local social-welfare board, which decides on applications and makes the payments. The commune furnishes the money and is reimbursed from the National treasury.

Women are not entitled to maternity benefits while they are serving a term in a penal or similar institution or while they are receiving poor relief in the full amount provided by law.—*The Child, Nov., 1937.*

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A law of Denmark (No. 163, May 18, 1937) legalizes therapeutic abortion under stated conditions. Officially established clinics to provide instruction in sex hygiene and in prenatal care must be available before April 1, 1938, when the law comes into force. Pregnancy must not be interrupted without a certificate from one of these officially established clinics that the woman has been advised of the support available if she completes her pregnancy and instructed as to the dangers and possible consequences of interrupting pregnancy. A certificate may be dispensed with in cases where the life or health of a pregnant woman is endangered by disease. In the case of a minor, the consent of parent or guardian is necessary for the interruption of pregnancy.—*The Child, Dec., 1937.*

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The conditions under which a child is to be considered legitimate are defined in a Law of Denmark enacted May 22, 1937 (Law No. 132), which becomes effective January 1, 1938. This new law replaces earlier statutes on the subject.—*The Child, Dec., 1937.*



# State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

## Water and Sewage in Relation to the Public Health

WARREN J. SCOTT, S.B., Director

Bureau of Sanitary Engineering

The principal bugaboo of the water purveyor — intestinal disease — has retreated into obscurity in recent years. The typhoid fever rates of 30 to 40 deaths per 100,000 population in Connecticut which prevailed from thirty to forty years ago have been reduced to less than 1 death per 100,000 population. In 1937 up to date (December 1st) there have been only 5 deaths in the state from this once dread disease. Safer water supplies have undoubtedly played an important role along with production of milk and other food supplies under more hygienic conditions, better methods of tracing and following up typhoid carriers, and improved personal hygiene of the individual. Innoculation against this disease is not very widespread because of its scarcity, but typhoid inoculation is, of course, an important weapon of combat.

### Public Water Supplies

General sanitary supervision of public water supplies in Connecticut is a duty of the state department of health under the law. These supplies number 108 and furnish water to 166 communities with an approximate population of 1,443,600 or about 90 per cent of the state population. Most of these supplies are from surface sources, i.e., lakes, ponds and reservoirs. Approximately once a year a sanitary engineer from the department makes a house to house check-up of sewage disposal at each habitation which is situated on land sloping or draining into water supply streams or reservoirs, bearing in mind that wash from excreta of one typhoid carrier has caused serious water-borne outbreaks. Local officials, of course, make more frequent inspections. To safeguard water supplies further,

most of them are treated by filtration or chlorination. Of the population supplied in Connecticut by public water supply systems, about 79 per cent drink water that is chlorinated and approximately 25 per cent drink water that is filtered. Some of these figures overlap. Only about one per cent of the population supplied from public systems is now supplied with untreated surface water. While Connecticut is fortunately endowed with abundant water from relatively clean areas, there is always the danger of chance pollution, so that treatment is desirable. Filtration and chlorination plants are also regularly inspected by sanitary engineers from the department.

All public water supplies, surface and ground, are regularly examined in the department laboratories to determine their safety. Physical, chemical and bacteriological examinations are made. The bacteriological test is, of course, the only criterion of the safety of water at the time of examination. Organisms of the coliform group, inhabitants of the intestinal tract of man and warm blooded animals, indicate by their presence that inadequately treated or unfiltered surface water is reaching the supply and consequently there is some potential danger that harmful disease-producing bacteria might enter the water. The organisms of the coliform group do not, of course, themselves produce disease. More adequate treatment of the water may be needed or in the case of well or spring supplies, poor location with reference to nearby sewage disposal systems or the need for improved covering or curbing may be indicated. So far as is known, human sewage is alone responsible for

major intestinal sickness due to water, although heavy concentrations of animal pollution may cause minor intestinal disorders, particularly in the case of infants.

Physical tests of water indicate its color, odor and turbidity, the characteristics that are noticeable when water is drawn from the faucet but ordinarily have no relationship to the safety of drinking water. Color and objectionable taste and odor may be due to dissolved vegetation from swampy areas. Decomposition of leaves and other organic matter as well as growths of microscopical organisms such as algae may impart taste and odor to water. Copper sulphate is added to reservoir water to destroy algae. Aeration and filtration may be employed to eliminate color and reduce tastes and odors. Alum is the coagulant ordinarily employed prior to rapid sand filtration. Lime and soda ash may be added to water to increase the alkalinity and to lessen corrosiveness. Most of Connecticut's water supplies are relatively soft. A few village supplies, notably those from drilled wells, are moderately hard.

### **Metal Poisoning Through Water**

Solution of metals by water seldom is a cause of sickness in Connecticut. On rare occasions corrosive waters such as have been found in some private spring supplies have attacked lead pipe to the extent of dissolving sufficient lead to cause lead poisoning. In some of our cities, lead service pipes have been widely used to connect street mains and house water piping systems but these pipes appear to have developed a protective inner coating rapidly, without causing trouble. At the present time, lead service pipes are seldom installed on public water systems in this state. The solution of copper in sufficient amounts to result in copper poisoning will not ordinarily occur unless so much copper is dissolved as to impart an objectionable metallic taste to water which will render it almost unusable. No instances of copper poisoning by water have been reported in Connecticut. In some parts of the country, the presence of fluorides in water has resulted in many cases of mottled enamel on the teeth of water users, but there is to date no information available from water analyses or observations that fluorides occur in troublesome amounts in Connecticut waters.

### **Water and Disease**

With modern development of public interest in sources of disease, there has been too much tendency to dismiss the need for more scientific investigation of the causes of cases of such diseases as typhoid fever and other intestinal disorders by pronouncement that it was "probably the water". Modern methods of protection against water-borne disease have greatly lessened the likelihood of such guesses being correct. At the same time, perhaps some of these unwarranted statements have some beneficial effect in keeping everybody concerned with water protection "on their toes".

### **Sewage Pollution of Water Supplies**

Connecticut must be regarded as fortunate in not having to use polluted rivers as sources of drinking water supply as is the case in many other sections of the country where supplies from clean drainage areas are not available. Yet the day will undoubtedly arrive when some streams now receiving a moderate amount of pollution may be required for water supply purposes. So the state, from a health and conservation standpoint, has a decided interest in cleaning up Connecticut's rivers and streams that may be used for future water supply.

### **Bathing Water Safety**

Another health consideration is the pollution of bathing waters by unchecked discharge of polluting materials into streams and tidal waters. Unfortunately there is a great dearth of evidence as to how and what sickness is spread by bathing water. Various afflictions covering the range of most bodily ills have been reported, frequently without any scientific basis. It is known, of course, that inasmuch as bathers may drink some of the bathing water, intestinal diseases may result. Bathers themselves pollute water with intestinal discharges so that even bathing water in areas remote from sewage discharge, may cause intestinal disorder. Sewage polluted bathing water, however, offers much greater opportunity of producing intestinal disease, although outbreaks of intestinal disease among bathers, even in polluted areas, are not a matter of record. As compared with the frequency of such outbreaks from contaminated drinking water supplies, the difference is probably due to the fact that bathers do not usually swallow large volumes of bathing water and that the dilution and natural changes of bathing water



by tidal, temperature and wind currents, lend themselves to the occurrence of individual cases of sickness rather than outbreaks. Regardless of the lack of epidemiological evidence, however, it goes without saying that bathing in sewage polluted water is potentially dangerous.

Skin infections of various kinds are sometimes alleged to be due to bathing water but there is little definite knowledge on the subject, except that it is known that epidermophytosis, popularly known as athlete's foot, may be spread by walkways, etc., around bathing places. Disinfecting solutions of chlorine and elimination from walkways of materials that tend to breed the organisms causing the trouble are methods of prevention. We do not know whether many skin infections reported as coming from bathing places may be due to pollution of the bathing water or whether the water simply acts as a vehicle of transmission of infective material from one bather to another or whether contacts through beach sand, common towels or other ways that might exist at a public playground might be responsible.

Eye, ear, nose and throat infections are often attributed to bathing water. Some of these might be due to lowering of resistance from chills; water may wash away protective mucous discharges containing antibodies, leaving affected parts susceptible; or harmful organisms already present in the body may be washed further into the ear and nasal passages during bathing. These are all possibilities aside from any harmful infections in the water.

While in the light of known epidemiological evidence, bathing places do not appear to be a *major* public health problem, there is a definite public health hazard in the use of sewage polluted bathing places and the state department of health constantly seeks to impress this danger upon the cities, towns and individuals responsible for discharge of untreated sewage.

#### **Safe Areas for Shellfish**

Polluting discharges of sewage have made it necessary to restrict the areas from which oysters and clams are taken for consumption. Many valuable shellfish growing grounds have been ruined by sewage pollution. Sewage discharges on the banks of streams and spread of such material on mud flats afford opportunities for transmission of infective material by flies during the summer months. Odor nuisances and destruc-

tion of fish life are other adverse effects of pollution of streams.

#### **Sewage Treatment**

Just as water may be treated to render it safe, so may sewage be treated to render it innocuous. Sedimentation of sewage to remove the settleable solids is the method of treatment most widely used by our cities and towns. Where communities are located on small streams with low flow in the summer months, it may be necessary to install further oxidation treatment at additional expense. Such treatment frequently consists of filters built of broken stone or sand. Aerating processes such as the activated sludge method of treatment are also employed. Sometimes flocculating chemicals such as iron compounds and lime are added to sewage to assist natural sedimentation in clarifying sewage. Chlorine is added to disinfect sewage effluents where discharge threatens safety of nearby bathing beaches or shellfish areas. This chemical also helps in odor control at sewage plants.

Public interest in sewage treatment is constantly growing. Many Connecticut cities and towns are spending or have expended large sums of money to aid in pollution control. The day is going by when people are content simply to remove sewage from their own homes without thought as to health hazards at more remote points. Financial obstacles in building sewage treatment plants are gradually being overcome and such improvements are taking their place along with public highways, public parks, schools and other long recognized component parts of community life. The state department of health endeavors to promote sewerage improvements. Treatment processes must be approved by the department and supervision over operation of municipal plants is practiced.

#### **Water, Sewage and Health**

The water at the faucet with its attendant possibilities of life giving service or the contrary, and the sanitary disposal of human wastes which may carry with them germs causing disease — both are important health problems deserving universal interest. The danger we may face as a consequence of reduction of water-borne disease may be that of becoming too smug regarding present conditions instead of carrying the realization that continual warfare is necessary. Eternal vigilance is the price of safety.

# The JOURNAL of The Connecticut State Medical Society

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Stanley B. Weld, M.D., *Editor-in-Chief*, Hartford  
Frank Stafford Jones, M.D., Hartford  
Charles Mirabile, M.D., Hartford  
Oliver L. Stringfield, M.D., Stamford  
Herbert Thoms, M.D., New Haven

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**MANUSCRIPTS.**— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

**ILLUSTRATIONS** — Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

**SUBSCRIPTIONS.**— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

**REPRINTS.**— Reprints of papers and obituaries may be obtained from the Editor at cost.

## • Editorials •

### TUBERCULOSIS IN YOUNG ADULTS

The decline in the death rate of tuberculosis during the past twenty-five years has been remarkable. Lest we be lulled into a false sense of security it might be well to scrutinize the behavior of the tuberculosis death rate during the past few years. The rate for the entire country in 1934 was only 4.9% lower than in 1933; and in 1935 a reduction of only 2.8% was attained. The rate for 1936 indicates that the nation-wide rate has not diminished below that of 1935. It is not improbable that the 1937 rate may show an increase. Thus, it is evident that tuberculosis is not yet a "controlled" disease.

Tuberculosis remains as one of the serious and important causes of death in young adults between the ages of sixteen and twenty-four. We have not yet seen a decrease in the tuberculosis death rate of girls between fifteen and twenty-one that is proportionate to the reduction in other sex-age groups.

The onset of tuberculosis is frequently masked and insidious. The disease frequently exhibits no significant symptoms and manifests no physical signs until an advanced and often incurable stage is reached. Tuberculous infection may be transmitted from an individual with masked disease to non-tuberculosis individuals under many circumstances.

High school students harboring unsuspected tuberculosis, therefore, are not only in danger themselves, particularly if they are girls, but are actually imperilling the health of other students by reason of the possibility of transmission of the infection during the prolonged close contacts incident to school activities.

Tuberculosis case finding among high school and junior high school students offers one means for further reduction in the death rate. The early detection of tuberculosis in the curable stages would accomplish this directly, and by indirection would serve to reduce the possibility of infection of healthy students. Inclusion of younger groups of school children would hardly be worth the effort and expense, since so few



cases of actual lethal pulmonary tuberculosis occur in this group.

A plan along the following lines might be worthy of consideration: All new entrants into junior high schools are tested with tuberculin. A positive reaction to the tuberculin test indicates that the individual has at some time been infected with the tubercle bacilli; but it does not indicate that an active tuberculous lesion is present. A negative reaction indicates that no infection with tubercle bacilli has occurred, and thus there is no potentiality for the development of tuberculous disease.

The positive reactors will represent various percentages of the groups tested depending somewhat upon the communities and the environments of the pupils. In some localities the percentage may run as low as 10% and in others as high as 40 or 45%. Those who react positively should have yearly X-ray examinations of the chest until they leave school. Negative reactors should be retested with tuberculin in one year, since infection may occur in the interim, and those individuals who become positive should then be included with the positive reactors for yearly X-ray examinations.

Probably only one per cent or less of the positive reactors on X-ray examination will show anything other than evidence of healed tuberculous infection; but if only one active case out of several hundred pupils is found the discovery will be not only to the benefit of that pupil but will also constitute a protection for the student body.

Modifications of this plan may be devised; other methods of approach to the problem can be developed; and other groups of the population can be surveyed.

Certain it is, that without an organized plan of some sort we are unlikely to see further marked recessions in the tuberculosis death rate, and indeed the possibility of an increase can not be disregarded if an attitude of *laissez faire* is adopted.



### THE PHYSICIAN AND THE PRESS

"The medical profession carries a heavy responsibility to educate, or at least inform, the public of its advances." This was not the statement of a physician but of a layman, a science editor of one of our largest newspapers.

Last October a unique group met in Chicago under the roof of the American Medical Association. It was the first Conference of Science Writers and included the leading medical editors, newspaper science writers and syndicated health columnists in the land. The Conference was called to create a better understanding between the physician and the press. The newspaper editor has long realized that all was not as it should be in the field of medical fact reporting. The physician is just becoming aware that a large share of the responsibility for unsatisfactory results is his and not that of the reporter or of the newspaper editor.

"Medicine is the only profession that is muzzled." It should not be. We have a social responsibility to give the public the facts as they should be given. We must inform, if not educate, the public of advances accomplished in the field of medicine and of the motives producing our activities. For years organized medicine has been misunderstood by the public; for years it has wrapped itself in a cloak of inscrutability. Business and industry are endeavoring to interpret themselves to the public; medicine must do the same.

Something has been accomplished in the field of medical publicity. We are told by the science editor of another large metropolitan newspaper that the New York State Medical Society is "one of the more enlightened groups in organized medicine," that from within that society it is possible to get a direct statement for the press from the man most qualified to speak. The New York State Medical Society has made a valuable contribution toward the better cooperation between physician and reporter by sending to all its county medical societies specific directions on "How to Conduct an Interview with a Reporter". They are worth reading.

"In handling the dissemination of medical news, the first object is to provide the maximum protection against confusion. The following suggestions may well be observed:

1. Write a statement and make it as complete as possible. Indicate the portions which may be attributed to an individual and whom to quote, with precise title.
2. In almost every instance of dealing with newspaper men it is desirable to state to them that you wish to talk off the record at the outset,

and later for the record. They will keep faith if this is made clear, and the material you give them in this way will help them to get right what they prepare for publication. Do not mix the two parts of your interview; finish with all 'off the record' matter before talking for publication; otherwise reporters may not be able to separate the two later from memory and, wholly unintentionally, be guilty of breaking faith.

After all the questions have been answered in this 'off the record' conversation, hand reporters a written statement and tell them it is what you wish to be quoted as saying, and if they depart from its verbiage to be sure not to vary materially its meaning. Do not expect this to be used verbatim, because it will not always be in just the condensed form for newspaper use. And each newspaper prefers a story written individually by its own reporter. But your safeguard is this: when you have written the statement, you yourself have been required to be more specific than you would be in conversation; you have had more time to measure your terms than when the medium is quick, colloquial speech. The result is a better statement of your own ideas. Now newspaper men, paraphrasing this statement, are not going far wrong and seldom will make their account repugnant to your real meaning.

Ask the newspaper men if they wish you to expand or further define the statement. If it is possible, do this at the time, also in writing.

With these precautions, the reporter will have a better chance to interpret the doctor correctly, and there will not be so many complaints by medical men of misinterpretation by the press.

The reporter's job is not an easy one. When he gets to his office after the usual interview, he is forced in his own words to fill in gaps which are left when the vernacular of speech is to be translated into the vernacular of print. He will do his work better if he has something in writing to serve as a check to his memory.

'Writing maketh an exact man.' "

We need more intelligent cooperation between our profession and the press in our own State of Connecticut. For nearly two years Hartford County has had a Medical Information Bureau, controlled and operated by the city and county medical societies working together. The press does not bear witness that any utopia has yet been reached in this section of the State but real

progress has been made. Representatives of the Bureau and of the press have met together to discuss their problems. It has not yet reached the point, as in New York City, where there has been an annual press dinner of the Medical Information Bureau with two medical men seated between each two newspaper men for the edification of the physicians.

William L. Laurence, Science Writer for the New York Times, proposes a central source of medical news and the formulation of a definite policy, "to be worked out by an official body in which members of the medical profession, working newspaper men and editors and publishers would be adequately represented". This means a medical information bureau in each county or large city in Connecticut. This means physicians in each community officially designated to cooperate with the local newspapers. When each State is thus cooperating with the local press a National Medical Information Bureau will very easily follow. We as physicians may sit back and berate the newspaper editors and publishers for selecting improperly trained men to cover medical news. If we show a willingness to furnish information for news, as well as for editorials, by individual interviews consummated by those among us qualified to speak, then we may look forward to an educated public. The profession will be better understood and will not be accused of being muzzled, cloaked in inscrutability or advertised by quacks.

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### TESTIMONIAL TO DR. STEINER

The Hartford Medical Society has become the recipient of a painting of Dr. Walter R. Steiner, for whom its library was recently named. On February 7 about 50 friends of Dr. Steiner and guests from out of town met at the Hartford Club for dinner. This was followed by a meeting of the Society in the Hunt Memorial Building at which time Dr. Archibald Malloch, Librarian of the New York Academy of Medicine, delivered an address on Medical Libraries. Dr. Malloch paid fitting tribute to Dr. Steiner's thirty-five years as librarian of the Hartford Medical Society Library. Dr. Steiner presented to the Society the painting of himself, a gift from a long time friend and patient. The occasion was very ably presided over by Dr. Edward J. Whalen, President of the Society.



## From the Secretary's Office

**CREIGHTON BARKER, M.D.**

**258 Church Street      New Haven**

### Delegates from New Hampshire

Earl J. Gage, Laconia and Osmon H. Hubbard, Keene, members of the New Hampshire Medical Society, will be the official representatives of that Society at the Annual Meeting of The Connecticut State Medical Society, Hotel Griswold, Groton, June 1 and 2, 1938.

### Delegates to New Jersey

At the invitation of the Medical Society of New Jersey we have appointed James R. Miller, Hartford, and Oliver L. Stringfield, Stamford, to be the official representatives of The Connecticut State Medical Society at the Annual Meeting of the Medical Society of New Jersey to be held at the Hotel Ambassador, Atlantic City, May 17-19, 1938.

### County Associations Annual Meetings

Fairfield, April 12, 3:30 P.M. Stratfield Hotel, Bridgeport. Speaker, Dr. Harry Zimmerman, New Haven. Subject, Vascular Diseases of the Central Nervous System.

Hartford, April 5, 4:30 P.M. Hunt Memorial Building, Hartford. Speaker and subject to be announced.

Litchfield, April 26, Charlotte Hungerford Hospital, Torrington. Speaker and subject to be announced.

Middlesex, April 14. Place, speaker and subject to be announced.

New Haven, April 28, 4:00 P.M. New Haven Country Club. Subject, Recent Advances in Therapy and Medicine. Speaker to be announced.

New London, April 7, Seaside Sanatorium, Waterford. Speaker and subject to be announced.

Tolland, April 19, 6:30 P.M. Old Homestead Inn, Somers. Business Meeting.

Windham, April 21, 12:30 P.M. Putnam Inn, Putnam. Speaker, Attorney John King, Willimantic. Subject, Medico-Legal Problems Confronting the Medical Profession.

The Secretary of the State Medical Society of Wisconsin has recently completed a tabulation of state and county society dues throughout the country and the proportion of physicians who are members of their State Societies. It is gratifying to note that The Connecticut State Medical Society has a proportionate membership as great, if not greater, than any other state organization. The comparison of the modest dues in Connecticut is also of interest.

<i>State Med. Society</i>	<i>Member-ship</i>	<i>% Eligible Non-Members</i>	<i>Dues for 1938</i>
Alabama	1527	20	\$3.00
Arizona	315	5	12.50
Arkansas	1067	20	5.00
California	5860	14½	10.00
Colorado	1131	12-15	15.00
Connecticut	1652	.05	5.00
Delaware	210	10	10.00
District of Columbia			
Florida	1205	20	10.00
Georgia	1800	14	7.00
Idaho	212		14.00
Illinois	7400	20-22	8.00
Indiana	2979	24.8	7.00
Iowa	2371	13	10.00
Kansas			
Kentucky	1750	15	5.00
Louisiana	1310	28	6.99
Maine	705	10	8.99
Maryland			
Massachusetts	5198	1,000 phys.	10.00
Michigan	3947	700 phys.	12.00
Minnesota	2346	23	15.00
Mississippi	950	25	4.00
Missouri	3212	700 phys.	8.00
Montana	349	37	5.00
Nebraska			
Nevada			
New Hampshire	485	20	6.00
New Jersey	3700	22	15.00
New Mexico	244		10.00
New York	15751	30	10.00
North Carolina	1614	25	8.00
North Dakota	379	5-10	5.00
Ohio	5933	15	5.00
Oklahoma			
Oregon			
Pennsylvania	8600		10.00
Rhode Island	493	50	10.00
South Carolina	800	25	6.00
South Dakota	310	90	10.00

Tennessee	1641	90	6.00
Texas	4137	15	9.00
Utah			
Vermont			
Virginia	1835	15	5.00
Washington	1196		12.00
West Virginia	1184	15	10.00
Wisconsin	2375	20	15.00
Wyoming	161	25	7.50

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### HOW SICK ARE WE?

(Continued from Page 141)

approximately nine days per person per year. In this group illness is less frequent than in childhood or old age and the average duration is longer than in childhood but less than in old age.

Based on the findings in the group surveyed there is an estimated loss of close to one and one quarter billion days per annum in this country because of illnesses of one week or longer duration and an average person will lose 9.8 days per year.

These estimates present in minimum terms the problem of illness which must be met annually by the combined efforts of the physician, the health officer, the welfare administrator, public and private nurses and other medical workers.

(This is a resume of Bulletin Number 1 of the National Health Survey, Sickness and Medical Care Series. Frequent direct quotation has been made from the Bulletin without notation. Bulletin Number 2, Illness and Medical Care in Relation to Economic Status, has also been received and subsequent bulletins are awaited with interest).

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### PNEUMONIA SERUM AVAILABLE IN 24 HOUR SERVICE

The State Department of Health now furnishes a complete pneumonia service, 24 hours a day, Sundays and holidays included. Funds have become available through the United States Public Health Service, not only for furnishing this laboratory service, but also to provide type-specific anti-pneumococcic serum for six types of pneumonia instead of for two as heretofore. The Department will furnish the serum free to Connecticut citizens upon whom payment would work a financial hardship.

### SPECIAL COMMITTEE APPOINTED

At the request of the State Tumor Committee the Council of the Connecticut State Medical Society has appointed a committee to investigate the possible need for some central institution to care for acute and chronic indigent cancer patients in Connecticut. Should the establishment of such an institution be found advisable, this committee will then attempt to devise plans for its financing and administration. The members of this committee designated as the Central Hospital Committee are:

Charles L. Larkin, M.D., Waterbury, Chairman  
Wilmar M. Allen, M.D., Hartford  
Stanhope Bayne-Jones, M.D., New Haven  
James D. Gold, M.D., Bridgeport  
Professor Ira V. Hiscock, New Haven  
Kenneth K. Kinney, M.D., Willimantic  
Mrs. Doris H. McBee, South Willington  
Philip G. McLellan, M.D., Hartford  
Stanley H. Osborn, M.D., Hartford  
Edward J. Otenheimer, M.D., Willimantic  
Francis Sutherland, M.D., Torrington  
Mr. Herbert F. Hirsche, Hartford, Secretary

At the first meeting of this committee held on February 3, 1938, it was voted to appoint the following committees:

#### Executive Committee

Philip G. McLellan, M.D., Hartford, Chairman  
Mr. Herbert F. Hirsche, Hartford  
Professor Ira V. Hiscock, New Haven  
Charles L. Larkin, M.D., Waterbury, ex-officio

#### Fact Finding Committee

Mr. Herbert F. Hirsche, Hartford, Chairman  
Wilmar M. Allen, M.D., Hartford  
Professor Ira V. Hiscock, New Haven  
Dr. John Watkins, New Haven

#### Policy and Organization Committee

Stanhope Bayne-Jones, M.D., New Haven, Chairman  
Ralph E. Kendall, M.D., Hartford  
Mrs. Doris H. McBee, South Willington  
Stanley H. Osborn, M.D., Hartford

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## Our Neighbors

### NEW HAMPSHIRE

An amendment to the Medical Practice Act of New Hampshire requiring a one-year internship went into effect on January 1, 1938. The number of men licensed in the State during 1937 exceeded that of any previous year.

### —☆☆— MAINE

The Maine Medical Association now conducts six Cancer Clinics in the State, one in Portland, two in Lewiston, two in Waterville, one in Bangor. An increasing number of patients are being referred to these clinics for diagnosis and advice. To date about 74% of the cases have been found to show signs of malignancy. Treatment has been instituted by request of the family physician and the cooperative use of radium, surgery and X-ray has been carried out by the specialists in charge. The Scannell Memorial Fund, dispersed by the Women's Field Army, has aided appreciably in securing X-ray and radium treatments for the medically indigent.

### —☆☆— NEW YORK

Under the heading "First, Principles — Then Action!" the Medical Society of the County of Westchester has adopted a resolution embodying four principles, copies of which it has sent out to all State and County Medical Societies throughout the land. This resolution has been adopted as an indorsement of the action of the American Medical Association in encouraging local medical societies to assume leadership in the development of plans to meet local needs. The Westchester County Society has gone one step further in stating the terms under which medical groups can profitably and safely assume leadership or cooperate in the development of local plans. The resolution also is intended to contribute toward correcting the popular misapprehension that organized medicine nationally is unwilling to meet other agencies halfway in efforts to correct obvious shortcomings and failures of the present medical economic system, in fact, is unwilling to admit any need of change in the medical economic picture at all.

### NEW JERSEY

Under the direction of the New Jersey Crippled Children's Commission a special committee was appointed in the fall of 1936 to investigate and draw up a plan for the care and treatment of children suffering from cerebral palsy. In a series of seven clinics 65 children were examined. In 85 per cent of the cases the findings indicated that the child would receive benefit from treatment.

As part of the project a demonstration unit for treatment was established in Babbitt Hospital, Vineland, N. J., in December 1936. The progress made by the patients during the first 6 months and the methods of treatment used are described by Winthrop M. Phelps, M.D., Medical Director of Babbitt Hospital, in an article, "The New Jersey State Project for Cerebral Palsy," in the Journal of the Medical Society of New Jersey, for September 1937.

### —☆☆—

### COMING MEETINGS

Mexico Military Symposium sponsored by Kansas City Southwestern Clinical Society, Kansas City General Hospital, Kansas City, March 28-29.

Southeastern Surgical Congress, Louisville, Ky., March 7-9.

South American Assemblies of the Inter-State Postgraduate Medical Association of North America, March 19-May 16.

European Assemblies of the Inter-State Postgraduate Medical Association of North America, May 18-July 17.

New England Hospital Association, Hotel Statler, Boston, March 10-12.

American College of Physicians, New York, April 4-8.

International Congress of Obstetrics and Gynecology, Amsterdam, Holland, May 4-8.

Medical Society of the State of New York, New York City, May 9-12.

Medical Society of New Jersey, Atlantic City, May 17-19.

Connecticut State Medical Society, Hotel Griswold, Groton, June 1-2.

Rhode Island Medical Society, Providence, June 1-2.

American Medical Association, San Francisco, June 13-17.

American Physicians' Art Association, First National Exhibition, San Francisco Museum of Art, San Francisco, June 1938.

Southeastern Dermatological Association, Charlotte, N. C., September, 1938.

American College of Surgeons, New York City, October 17-21.

American Public Health Association, Kansas City, Mo., October 25-28.

American Urological Association, Southeastern Branch, Louisville, Ky., December 2-3.

## - NEWS -

### *from County Associations*

#### **Fairfield**

The Fairfield County Medical Association will hold the following meetings before summer:

March 8, Tuesday, 8:30 P.M., at Stamford Hall. "Edema, Its Differentiation and Treatment." Dr. Clarence L. Robbins, New Haven.

April 12, Tuesday, 3:30 P.M., at Stratfield Hotel, Bridgeport. "Vascular Diseases of the Central Nervous System". Dr. Harry Zimmerman, New Haven.

May 12, Thursday, 9 P.M., at Hotel Green, Danbury. "Peripheral Vascular Disease — Its Conservative Treatment." Dr. Ashley Oughterson, New Haven.

At a joint meeting of the Fairfield County Medical Association and the Greenwich Medical Association held at the Pickwick Arms Hotel on January 11, Dr. George Blumer of Yale Medical School gave a very clear and instructive talk on Subacute Bacterial Endocarditis. The meeting was well attended.

The Bridgeport Medical Association met on February 1 at which time Dr. Ashley Oughterson of New Haven discussed Peripheral Vascular Disease — Its Conservative Treatment.

#### **Hartford**

Dr. George E. Cogan of Hartford was re-elected president of the Board of Health at the annual meeting on January 19. Dr. Charles W. Daly and Dr. Cogan were appointed to the committee on communicable disease and laboratory and Dr. Daly was appointed to the committee on public health nursing and child hygiene.

Dr. James F. Lynch was re-elected president of the medical staff of St. Francis Hospital, Hartford, at the annual meeting on January 19. This will be Dr. Lynch's third term in this office. Dr. Michael J. Morrissey was named one of the five new directors of the hospital for the coming year. Dr. Richard C. Buckley was appointed neuro-surgeon and Dr. George E. Cogan, attending obstetrician.

At the School Health Education Conference held in Hartford on January 18, Dr. W. W. Bauer, director of the Bureau of Health and In-

struction of the American Medical Association, spoke on the modern program of public health education. Dr. Haven Emerson of Columbia University spoke on the effects of alcohol on the individual and the need for instruction in this subject in connection with the high school courses in biology.

The Neuro-Psychiatric Institute of the Hartford Retreat has installed a seven foot aluminum cabinet for carrying on so-called fever therapy in certain diseases.

St. Francis Hospital was visited by fire on February 3 when a \$10,000 blaze visited the Nurses Home. 26 nurses were asleep in the building at the time the fire broke out but all escaped without injury. The firemen were complimented on their efficient work in preventing what might very well have been a very disastrous fire.

Dr. Robert L. Rowley, medical director of the Phoenix Mutual Life Insurance Company and one of the most prominent medical men in the life insurance business, has just completed twenty-five years with that company.

Dr. and Mrs. Alfred M. Rowley of West Hartford, after spending a few weeks in Mexico, have gone to Florida for the remainder of the winter.

Speaking for the Medical Information Bureau of the Hartford Medical Society and the Hartford County Medical Association before a lay audience in Hartford on February 1, Dr. James Raglan Miller made very clear to those present the distinction between hospital insurance and sickness insurance. This address was one of several planned by the Bureau in an effort to inform the public on medical matters of vital interest to the individual. Two days later, in an editorial entitled "Who Is To Pay The Doctor", the Hartford Courant commented on Dr. Miller's address and complimented the House of Delegates of our State Medical Society on its efforts to solve these medical economic problems.

Dr. John Preston Carver, 66, medical examiner in Simsbury for twenty years and a general practitioner there for thirty-six years, died at his home on February 4. Dr. Carver's practice extended to many surrounding towns.

The Hartford Hospital was inspected in September 1937 by a representative of the Council on Medical Education and Hospitals of the American Medical Association. This inspection was in the nature of a resurvey of the educa-



tional facilities for internes and was also concerned with a study of the new residency plan in anesthesia. The inspector recommended that the hospital be continued on the approved interne list and that approval be extended to the residencies in anesthesia.

Dr. Loren R. Weir, 54, eye, ear, nose and throat specialist in New Britain, died suddenly at his home on February 10. The cause is said to have been heart disease. Dr. Weir held his usual office hours the preceding evening.

Dr. John T. Axtelle, 83, formerly a general practitioner of Hartford, died at the Masonic Home in Wallingford on February 9.

The second discussion group sponsored by the Medical Information Bureau listened to Dr. J. Kingsley Roberts of New York on February 9. Dr. Roberts who is director of the New York Bureau of Cooperative Medicine, presented the subject of "The Co-operative Medical Program." There was a large attendance.

#### Middlesex

Dr. Clifford Walcott Kellogg, 77, a well-known physician in Higganum, died of pneumonia at the Middlesex Hospital, Middletown, on January 31. Dr. Kellogg was widely known for his musical and inventive talents.

#### New Haven

Dr. Howard W. Haggard, of Yale, is to be one of several distinguished medical guests to address the Minnesota State Medical Association at its 85th Annual Meeting in Duluth, June 29-July 1.

Dr. John P. Peters, professor of medicine, Yale University School of Medicine, New Haven, delivered the fourth Harvey Lecture of the current series at the New York Academy of Medicine January 20. His subject was "Transfers of Water and Solutes in the Body."

At a meeting of the Bowdoin Alumni Association of Central Connecticut held at Waterbury on February 3, Dr. Harold F. Morrill of Waterbury was re-elected vice-president and Dr. Clyde Deming of New Haven and Dr. H. E. Allen of Waterbury were elected to the executive committee.

A new seven story infirmary housing 140 patients and costing \$400,000 is soon to be built by the State Department of Public Works at Laurel Heights Sanatorium in Shelton.

At the Annual Meeting of the New Haven Medical Association held on Wednesday evening, January 19th, 1938, the following officers were elected to serve for one year:

President, Dr. Willis E. Hartshorn.

Vice-President, Dr. Robert G. Tracy.

Recording Secretary, Dr. William J. Dennehy.

Financial Secretary, Dr. Ralph W. Nichols.

Treasurer, Dr. Charles E. Sanford.

Executive Committee, Dr. Carl W. Henze.

Dr. John F. Sullivan.

Literary Committee, Dr. Luther K. Musselman.

House Committee (for three years),

Dr. William C. Duffy.

Dr. John Mendillo.

Finance Committee, Dr. Thomas H. Russell.

The first of the regular fortnightly meetings of the association in February was addressed by Dr. Paul W. Vestal, of New Haven, on the subject of the "Disability Evaluation following Trauma" and by Dr. David M. Gillespie, attending surgeon at the New York Hospital for Ruptured and Crippled, on the subject "The Hernia Problem."

The second February meeting was held on Wednesday, February 18 and was addressed by Dr. George T. Pack, attending Surgeon at the Memorial Hospital, New York City, on "Treatment of Cancer of the Stomach".

Two exhibits were arranged at the Yale School of Medicine in connection with the annual Beaumont Lecture on the History of Medicine, given on January 7 by Frederick C. Waite, Professor of Histology and Embryology at Western Reserve University School of Medicine. Dr. Waite spoke on "The Degree of Bachelor of Medicine in the American Colonies and in the United States." Dr. Creighton Barker loaned selected pamphlets from his collection of catalogues of medical schools, including issues of Castleton, Berkshire, Tremont and other institutions which flourished in the early part of the nineteenth century, as well as representative early broadsides, addresses to students, and catalogues of schools still in existence. The second exhibit consisted of a few volumes illustrative of the collection of about 1500 books and pamphlets which Dr. Edward Clark Streeter of Stonington has recently presented to the Library of the School.

The February meeting of the Yale Medical Society was held on Wednesday evening, Febru-

ary 9th in the Sterling Hall of Medicine. Four papers were presented by members of the faculty of the Yale University School of Medicine.

Dr. William U. Gardner of the Department of Anatomy reported on the growth of the mammary glands of the monkey stimulated by estrogens and studied by the colchicine method.

The second paper by Dr. William W. Greulich and Dr. Herbert Thoms reported studies of body build and pelvic type in nulliparous white women.

The third paper presented the studies of Dr. C. N. H. Long in collaboration with Dr. Kenneth W. Thompson and Miss E. G. Fry on the use of the partially depancreatized rat for the study of carbohydrate metabolism.

The fourth paper reported a study of the bacterial flora of clean surgical wounds by Dr. John W. Hirshfeld and Dr. Howard R. Ives, Jr.

The March meeting of the Yale Medical Society will be held on the evening of March 9th, at 8:30 o'clock in the Sterling Hall of Medicine. Officers of the Society for this year are: President, Dr. C. N. H. Long, Professor Physiological Chemistry; Vice-President, Dr. Daniel C. Darrow, Associate Professor of Pediatrics; Secretary, Dr. Gustaf E. Lindskog, Assistant Professor of Surgery.

sport, it was he who warned "Remember the rule of the woods. Guns over the fence first and keep a proper distance apart". He was cautious and meticulous in everything he did. He was fond of outdoor life, hunting being his favorite sport.

He enjoyed membership in the Campfire Club of America.

Dr. Boucher was one of eight children. He had five brothers and two sisters. Two of his brothers were medical doctors and two were dentists.

He was born in East Windsor, Connecticut, October 15th, 1875. He prepared for his medical education in the Windsor schools and was graduated in medicine at the College of Physicians and Surgeons in Baltimore. After an internship at St. Joseph's and the Presbyterian Eye and Ear Hospitals in Baltimore, he began practice in the year 1904, becoming associated with his brother Dr. John B. Boucher in Hartford. He continued his association with him for twelve years and then returned to post graduate work in eye, ear, nose and throat at Harvard and the Post Graduate Hospital in New York. After practicing that specialty a few years he planned to return to his former association with his brother a few months before the latter's sudden death. From that time on he practiced general surgery.

In 1912 Dr. Boucher was married to Agnes Gertrude Britton, of a well known family of artists. Their marriage was blessed with six children, four daughters are now living.

In spite of the arduous duties of his profession he found time to devote his talent and energies to many civic and fraternal affairs and at the time of his death was Secretary of the Board of Education.

Dr. Boucher was dynamic in all his activities and ever ready to challenge irregularities whether in medicine or civic life. He had a sterling character, an inquisitive mind and the unquestionable courage of his convictions. He was a good and ready debater, prompt on his feet to sponsor or defend a cause. Once he espoused the cause of a friend or an issue, he never vacillated whatever the cost in popularity or purse. Unctious phrases or benign poultices never seemed to

## • OBITUARIES •

JAMES J. BOUCHER, M. D.

1875 - 1936

The end of Life's journey came to Dr. James J. Boucher November 19th, 1936, after a successful and energetic career. It was a tragic end which was brought about by a gunshot wound of the chest while hunting with friends. Death was instantaneous and the news of the fatality stunned the community. The accident happened while he was climbing over a wall. It seems almost fateful that his end should come, as it did, for upon leaving the farm house for the day's



serve his purpose when correction of a wrong was his aim.

In the repose of his home he was gentle, generous and entertaining. He was an extensive reader, history being his preference. He was a loyal husband and father whose constant concern was the happiness of his family.

Dr. Boucher belonged to a family of medical men. He kept pace with medical progress attending medical sections and clinics in many medical centers.

He enjoyed travel and with a retentive and accurate memory was fond of relating his experiences in meeting fellow travelers and discussing their views in matters of consequence.

He was a competent surgeon in whom his patients reposed great confidence. Nevertheless he was never unwilling to accept further council for their benefit and often sought it. He will be missed and always remembered with respect by countless patients and friends.

M. J. Morrissey, M.D.



### THOMAS F. O'BRIEN, M.D.

1884 - 1936

Dr. Thomas F. O'Brien, son of the late Timothy and Julia (Ryan) O'Brien, was born in Bridgeport, Connecticut, January 4th, 1884 and died November 30th, 1936 at his home, 622 Broadview Terrace, Hartford, Connecticut.

His elementary education was received in the schools of Bridgeport. He had to go to work at an early age because of the death of his father. From that time forward his life was a real American success story. He was a self-made man who was well made. In order to obtain a higher education he continued his studies at evening school. At the age of twenty he entered St. Vincent's Hospital and was one of its first graduates. Later he took a post-graduate course at the Mills Training School for male nurses in New York City. While working at his profession in New York and Boston he took courses which fitted him for Medical College. In 1912 he entered the College of Physicians and Surgeons at Baltimore, Maryland, and four years later received his medical degree.

He came to Hartford in 1916 and served his internship at St. Francis Hospital, later taking a course in Orthopedic Surgery at the Hospital for the Ruptured and Crippled in New York. His first appointment was that of Assistant Superintendent of Undercliff Sanatorium at Meriden where he remained until the outbreak of the World War.

He enlisted in the United States Navy as a Lieutenant and served as ship's doctor on the United States Transport "Neponset", later being transferred to the "Olivia", which was engaged in returning soldiers to this country after the war.

On his discharge from the Navy he became Superintendent of Seaside Sanatorium at Niantic where he remained until May, 1920.

On Thanksgiving Day, 1919, he married Miss Hilda Stickney of Hartford, who with two daughters, Mary and Hilda, survive him.

The next year he moved to Hartford where he opened an office for the general practice of medicine. He was a member of the staff of St. Francis Hospital.

On August 24th, 1934 he was appointed Assistant Superintendent of Health and Epidemiologist of the City of Hartford and in October of the following year he became Superintendent. This office he held until the spring of 1936 when he was given a leave of absence because of ill health.

Dr. O'Brien was a member of the Hartford Medical Society, the Hartford County Medical Association, the American Medical Association, the American Public Health Association, the Hartford Council and Bishop McMahon Assembly, Knights of Columbus, the Bridgeport Lodge of Elks, and Rau-Locke Post American Legion.

Dr. O'Brien was a high type of the good citizen who was loyal to a set of ideals which marked him as a true Christian, and who as a symbol of hard work and persistent patience, won for himself honor and respect not only among the members of his chosen profession, but among the people in the communities which he served. He will be missed in many places where his deeds are well known, but most of all in his home which he made ideal.

John F. O'Connell, M.D.

## • Quarto Notes •

### TRAITE DE CHIRURGIE ORTHOPEDIQUE

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Paris, France Masson at Cie, Ed. 1937

This is probably the most comprehensive as well as the most ambitious undertaking on Orthopedic Surgery to date. The distinguished directors and compilers alone constitute sufficient recommendation, plus some odd sixty collaborators, all French Surgeons, each one selected for his particularly complete mastery of a given subject. Every French Orthopedic Center has contributed so that the completed treatise are a true cross section of French Orthopedics. The world literature is quoted voluminously with special preference for the practical but not at the sacrifice of the theoretical. Each volume is devoted to a particular anatomical part, covering the entire system.

Volume one presents the physiology, pathology and general treatment of the diseases of bones and joints. Traumatology is dealt with in detail with special reference to nerve injuries bringing this most brilliant phase of French surgery up to date.

The second volume devotes 620 pages to the vertebral column and its attachments with the illustrations most illuminating and in greater abundance than in any other volume. The last chapter treats of the details of the hand, which alone presents sufficient information to warrant an English translation.

The remaining volumes are dedicated to the study of disabilities of the lower extremities, laying greater stress upon the thigh in relation to infections such as osteomyelitis and tuberculosis, congenital luxations, dystrophies and fractures. 150 pages are devoted to paralysis alone.

Throughout each volume there is considerable information relative to the legal aspect of traumatology. This most unusual work should become a source book of Orthopedic Surgery presenting its most recent concepts and acceptable procedures both in manipulative and operative techniques. The acknowledgement of the established position of an orthopedic surgeon in the field of traumatology is completely indisputable in this day of air and motor accidents.

The cover of each volume shows a reproduction of the original etching used to illustrate the first "Traite" on corrective surgery by Andry-Paris, 1744, in which the term "orthopedique" first appears in medical literature. It depicts a twisted young oak tree lashed by a heavy rope to a straight shaft imbedded in the soil beside the tree. This, of course, represents the original meaning of the word orthopedic. Those who are teaching Orthopedics in medical schools and clinics should be particularly attracted to this edition.

C. W. Goff

### THE THERAPEUTIC PROBLEM IN BOWEL OBSTRUCTIONS

By Owen H. Wagensteen, B.A., M.D., Ph.D.,  
Professor of Surgery, University of Minnesota  
and Surgeon-in-Chief, University of Minnesota  
Hospital

Cloth

Price \$6.00

Pp. 360

Baltimore and Springfield, Ill. Charles C. Thomas 1937

The book is divided into three parts. Under the first, entitled "Therapeutic Problems in Bowel Obstruction", the physiology of bowel obstruction and the role played by mechanical factors as contrasted to toxic factors in the development of the ill-consequences of obstruction are carefully considered and emphasized. Attention is called to the significance of recognizing obstruction by intestinal colic and X-ray. Saline solution, transfusions, conservative decompression by mild suction applied to the duodenal tube and operation are carefully analyzed as remedial agents.

Under Part Two — A general consideration of diagnosis and treatment in bowel obstruction — the evidence necessary for the diagnosis and location of obstructions by all known diagnostic methods are discussed in painstaking detail. Methods of treatment, choice of procedures, pre-operative methods and post-operative care are elaborated.

Part Three devotes fourteen chapters to special obstructions covering the whole gamut of causes. In recent years, Dr. Wagensteen's studies have constituted a great advance in a subject which previously was not well understood and complicated by a multiplicity of theories and paucity of scientific facts. In this beautifully compiled book, by a real master of the subject, these theories are exploded and clear-cut scientific facts are established. From these facts as a basis, sound logical treatment is built up. In the preface the author states that he "attempts to set forth in a concise manner the important aspects of the therapeutic problem in obstructions of the bowel as they appear to the writer." "It is more concerned with the problem of therapeutics as they are related to the subject of obstructions of the intestines in the broad sense rather than with special considerations peculiar to certain types of obstruction." There is no question as to the clearness with which this is done. The book contains ninety illustrations; each chapter is followed by a long list of references and the index is strikingly good. The work is of superlative importance to all practising doctors since it is so common in practice to have patients develop alarming distension and frequently evidence of obstruction, either spontaneously, or during the course of disease.

J. R. Glazier

—☆☆—

### THE MANAGEMENT OF FRACTURES, DISLOCATIONS AND SPRAINS

by John Albert Key, B.S., M.D.,  
and H. Earle Conwell, M.D., F.A.C.S.

2nd Edition

St. Louis

C. V. Mosby Co.

1937

A review of a book of this type, as complete and thorough as it is, is impossible in the space allotted. This



book is almost as complete in its consideration of all aspects of the diagnosis, treatment, and complications of acute bone and joint traumata as *Gray's Anatomy* is of anatomy.

The plan of the book is excellent, taking each subject in orderly succession, it covers all details of this specialty with clarity and completeness.

In Part I., which covers general considerations, the reader should pay particular attention to pages 179 to 198, which give an excellent resume of compensation and medico-legal aspects of fracture cases.

In a book of this size and completeness a thorough review under the present circumstances is not possible. To show the thoroughness of the book, one might select at random, a chapter on fractures of the skull and brain trauma, written by Charles Edward Bowman, M.D.

Dr. Bowman points out that whereas most fractures deal primarily with bony injury and secondarily with soft-parts injury, the reverse is true in skull fractures, where the bony injury is secondary to the soft-parts injury.

He discusses the importance of X-ray examination and technique, but is careful to point out that in serious injury no X-ray is more important than the condition of the patient. He discusses concussion and the parenchymal changes which often follow, and these he feels cause the "neuroses" following trauma. These neuroses he calls more properly "traumatic encephalitis."

Massive hemorrhages result from torn middle meningeal and pia arachnoid vessels and ruptured subcortical vessels, the latter being often the cause of "chronic subdural hematoma." In these cases of brain injury he stresses the importance of history, particularly to rule out pre-existing conditions which may obscure the picture, as, for example, a previous history of a dilated pupil.

He then discusses thoroughly, the careful general examination, and particularly the importance of a thorough neurological examination. Then in succession, he discusses the general careful study of symptoms, covering mental dullness, irritability, medullary compensation, medullary exhaustion, temperature, pulse rate, blood pressure, respiration, pupils, and eyegrounds.

In orderly succession and with maximum thoroughness, he discusses massive brain injury, and the clinical evidence of rapidly increasing intracranial pressure, with rapid exhaustion of medullary centers, or evidence of medullary compensation.

Next he discusses cases of definite brain injury; depressed fracture of the skull, simple or compound; linear fractures of the skull, simple or compound; middle meningeal hemorrhage, and such miscellaneous head injuries as concussion, chronic subdural hematoma and chronic pneumocephalus.

The chapter on brain injury is typical of the thoroughness of this work. Other sections deserving special mention are the chapter on injury of the spine, which is well written; the chapter on injury of the wrist and hand, including injury of the Colles' type; the chapter on injury of the hip; and, finally, the chapter on injuries about the knee.

Necessarily, in a work as compendious as this one, much material will be left unread, but as a ready-reference

work, it is an invaluable book, not only for the orthopedist, but more particularly for the general practitioner.

This book can well be placed on the shelves of the library of any doctor practising medicine or surgery as a reliable reference book on all aspects of acute bone and joint traumata.

J. W. Larrabee

—☆—

## TWENTY-FIVE YEARS OF HEALTH PROGRESS

**A study of the mortality experience  
among the Industrial policyholders of the  
Metropolitan Life Insurance Company.**

1911 - 1935

by Louis I. Dublin, Ph.D.

Third Vice-President and Statistician  
and Alfred J. Lotka, D.Sc., Assistant Statistician

611 pages

New York Metropolitan Life Insurance Co. 1937

This review of the mortality experience of one of the largest life insurance companies in the United States over a period of 25 years affords valuable data for reference and presents indications of what yet remains to be accomplished in the prevention of sickness and premature death. At the beginning of the period studied the Death Registration Area comprised but ten states, since 1933 it has included the entire Union.

Certain facts of outstanding significance are revealed. There has been an actual reduction in mortality. The average duration of human life has been extended by 14 years or 30%. Tuberculosis has shown a rapid decline in mortality. Heart disease has risen to occupy the leading place in the list of the causes of death. Cancer has increased from seventh to second place, probably not due to an actual increase but to improvement in diagnosis. Serum therapy in pneumonia now plays a prominent role and the work of the New York State Bureau of Pneumonia Control is outstanding. The campaign for immunization against diphtheria should be widened. Convalescent sera and more adequate nursing should be utilized in measles and scarlet fever. The cardiovascular renal diseases are becoming better known and now are considered as a single group. The diabetes death rate is not declining in spite of insulin. Puerperal mortality shows very little improvement. The death from typhoid fever has declined more rapidly than that from any other disease. In 1934 the homicide death rate was highest in the United States of all the countries; more fatal accidents in relation to the size of the population were recorded than in any other nation except Chile; there were more automobile fatalities in proportion to the population than in any other country.

The book is replete with a large number of tables presenting the mortality experience of this company. Comparisons with figures from the general population are drawn frequently and add much to the value of the author's conclusions.

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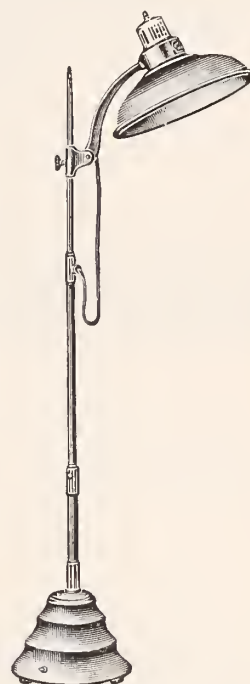
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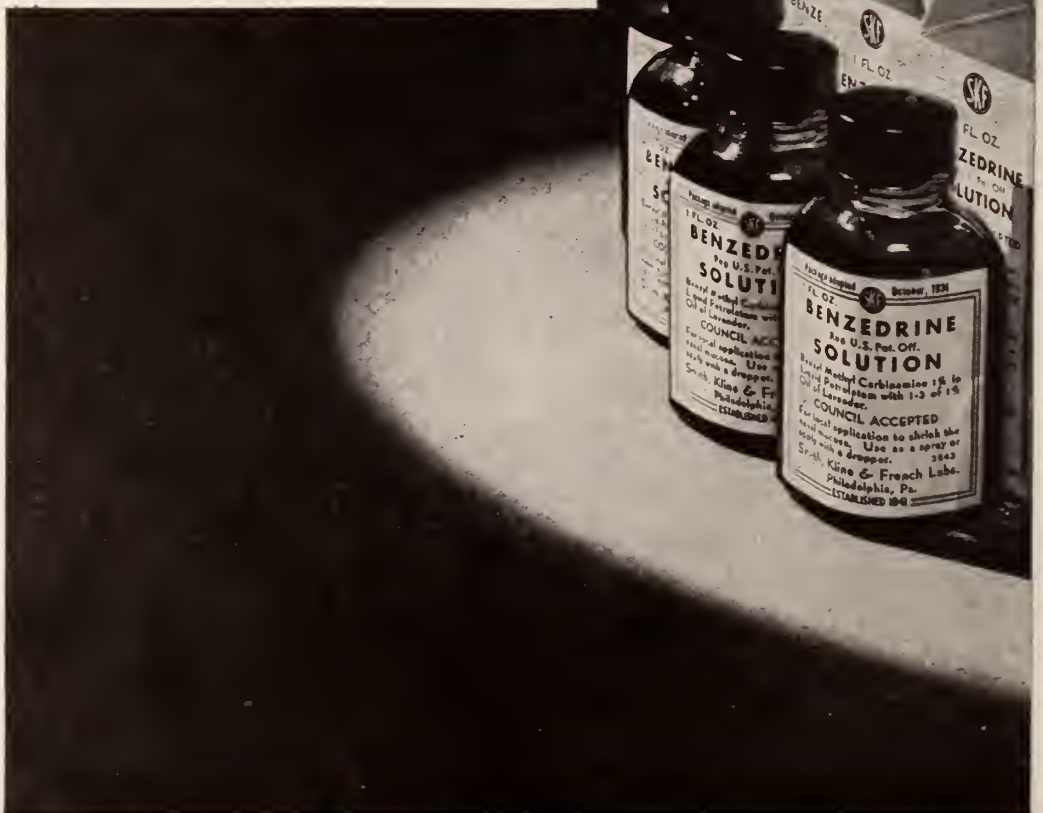
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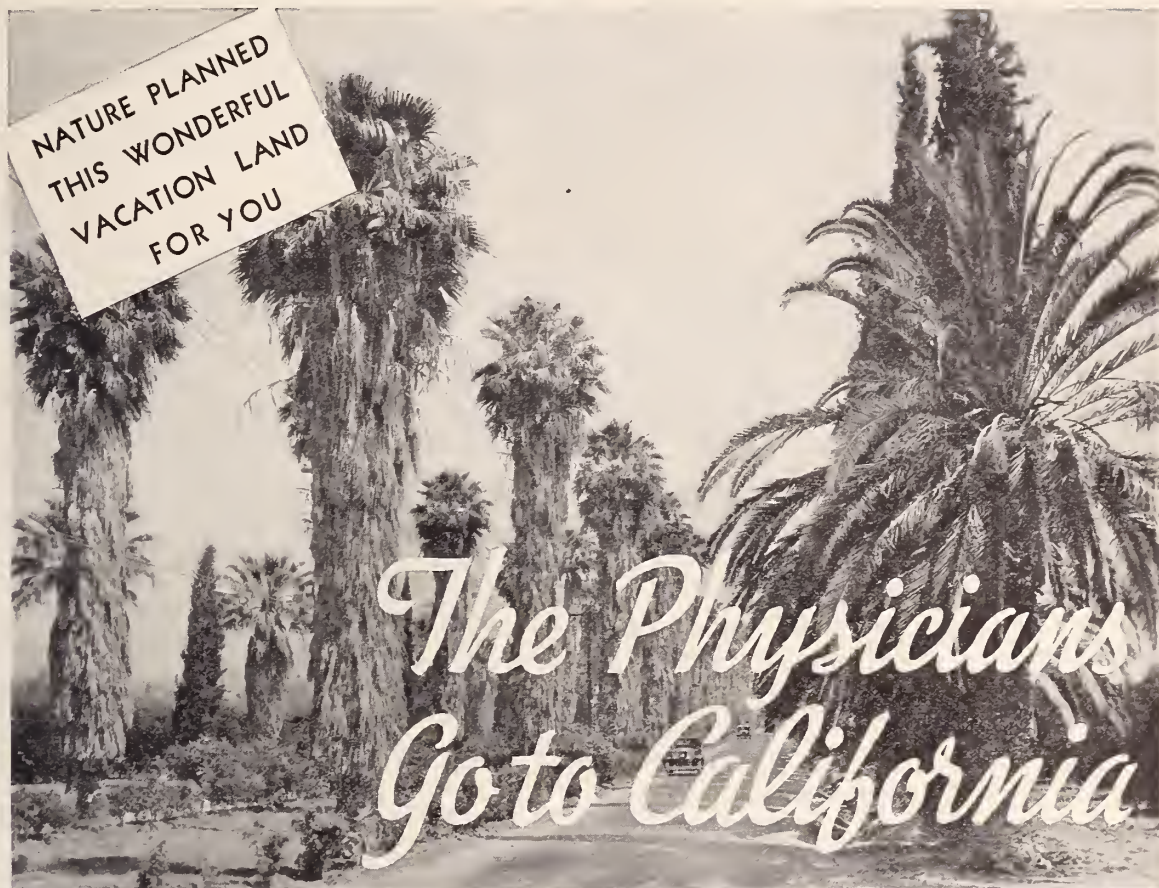
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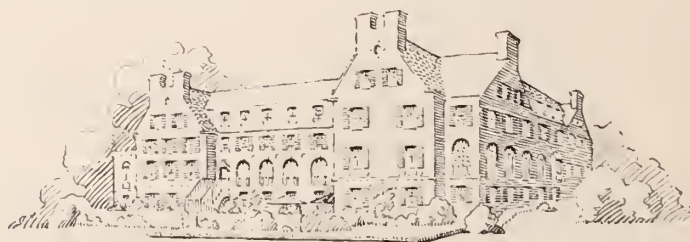
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## Fracture Disabilities of Forearm<sup>\*</sup>

A. STEINDLER, M.D., F.A.C.S., Professor, Orthopedic Surgery  
The State University of Iowa, Iowa City, Iowa

In the organs of the locomotor system form and function have come to be held as interdependent. Impairment of one entails impairment of the other. Current opinion visualizes in form merely the alignment of the skeletal apparatus. But the above principle can be true only if all structures of the locomotor system, the bony as well as the soft parts, are considered. Formative change in any of the constituent structures leads to dysfunction, the degree of which is by no means always determined by the condition of the skeletal parts. Disabilities of the wrist following fracture of the forearm bones are no exception.

What are the principle factors which are responsible for this disability, and which one of these are under control?

The major factors are the following:

1. Disalignment; it influences range and direction of motion.
2. Deficiency of the arterial circulation of the bone; it retards union and sometimes leads to non-union and pseudoarthrosis.
3. Degenerative arthritis; it occurs in extra-articular as well as in joint fractures. Such arthritis restricts joint motion concentrically and it interferes with function because of the pain and infiltration in the joint.
4. Contractures due to injuries of muscles, tendons, and tendon sheaths, as well as secondary contractures of the capsular apparatus of the joint.

5. The involvement of the median and ulnar nerves; it causes motor and sensory disturbances, pain, atrophy, and neurotrophic symptoms. Vasomotor stasis of the bones of the wrist and forearm; it leads to a high degree of osteoporosis.

Of all these contributory factors, the first one, namely, the disalignment of the fractured bones, is almost entirely under control. The contractures of muscles and tendons are under partial control in so far as contracture position can be avoided and tendencies to contractures can be properly met.

Deficiency in arterial circulation as well as the degenerative arthritis and the circulatory stasis, however, are factors to which little prevention can be applied.

### 1. The Disability Due to Mal-alignment Colles' Fracture

The effect upon the wrist motion is purely mechanical. The most frequent deformity in Colles' fracture is the silver fork deformity, which results from a failure to apply or maintain sufficient traction at reduction. The silver fork deformity produces two mechanical difficulties.

1. The rotation of the lower fragment in the sagittal plane causes the joint surface to look distally and dorsally instead of distally and volarly. The immediate effect of it is limitation of flexion.
2. The impaction of the lower fragment into the radial shaft produces a radial deviation of

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the wrist. The result of it is that the radial abduction is intact but the ulnar abduction is entirely abolished.

The dynamic effect of this disalignment is two-fold: First, it restricts flexion of the fingers and thereby interferes with the efficiency of the grip. Secondly, it changes the plane of the flexion-extension field: instead of being, as usual, in an oblique plane from dorsal-radial to volar-ulnar, the direction is now changed to one from dorso-vulnar to volar-radial. This is what many patients mean when they complain that the wrist now moves "in the wrong direction."

What is the cause of this disalignment? The usual method of reduction is by traction and ulnar abduction after the fracture site has been anaesthetized with a 2% novocaine solution. This is followed by a dorsal splint (Bohler), or an anterior and posterior molded plaster splint extending from the bases of the fingers to the elbow joint.

Others effect reduction by direct pressure (Clark) by rolling pin method. Traction, however, is always necessary to disengage the fragments from the silver fork position and to relieve the radial impaction. The failure to produce and maintain traction results in the silver fork deformity and a shortening of the radius.

**The reversed silver fork deformity** is not a very common form of disalignment in Colles' fracture. In the series of cases reported by Graly and Hobart, successfully reduced by closed manipulation, traction is applied, the fragments are manipulated, and the wrist is placed in position of semi-extension and ulnar deviation, and an anterior posterior molded splint is applied reaching from the bases of the fingers to the elbow joint.

**The buckling or torus fracture** described by Gillies who collected 75 cases, is an infraction occurring in children which leaves very little if any deformity. It consists of a buckling of the lower end of the radius in boys posteriorly, in girls more often anteriorly, usually affecting children from three to fifteen. Apparently there is no disability following, but splinting is nevertheless indicated for prevention.

**Separation of the lower epiphysis.** According to Poland, this is one of the most common of epiphyseal separations. It occurs in children from twelve to eighteen, nearly always by indirect violence. It goes at least partly through the

cartilaginous plate. The blood supply of the epiphysis is independent from the diaphysis, which explains the infrequent occurrence of necrosis of the epiphysis. The fracture is chiefly extra-capsular (Wilson). In this fracture the deformity is of the silver fork type, but impaction is rare. A reversed silver fork deformity in Colles' fracture is not uncommon. If radial deviation occurs it may assume an exaggerated form, showing an unequal partial destruction of the epiphysis. In this displacement the tendency to recurrence is great because, as Zadek<sup>1</sup> points out, there are two smooth surfaces and there is no interlocking of the fractured ends, as is the case in Colles' fracture. Premature ossification often follows and brings about a retardation of growth with resulting radial and ulnar clubhand. In cases of asymmetric destruction early chondrectomy to arrest the increasing deformity is necessary.

**Fractures of the shaft of the radius.** In the absence of fracture of the ulna these fractures are comparatively easily controlled by traction. The resulting deformity is two-fold: rotation and angulation. The rotation deformity depends upon the site of the fracture and, consequently, the position of immobilization varies with the level of the fracture.

(a) If the fracture is above the insertion of the supinator brevis, the lower fragment remains in mid-position against the upper fragment.

(b) If the fracture is above the insertion of the pronator teres, the lower fragment remains in strong pronation against the upper fragment.

(c) If the fracture is below the insertion of the pronator teres, the lower fragment remains in mid-position.

Due to the forward displacement of the ulnar portion in the lower radio-ulnar articulation, there is not infrequently inhibition of the rotatory motion by impingement of the forward displaced ulna. In these cases the supinatory range suffers most.

**The fracture of the ulna.** The simple fracture of the ulna is treated the same as the simple fracture of the radius and is easily controlled. One important complication is the dislocation of the head of the radius, first described by Monteggia in 1814. In Cunningham's series of 257 fractures of the ulna, 14 or 5.5%, had complete dislocation of the head of the radius. The distal fragment of the ulna becomes displaced upward

and forward, and the radius follows the lower fragment. Immediate and prompt reduction by manipulation is urged both of the fracture and the dislocation. Otherwise the deformity and disability are considerable and there remains marked limitation of flexion and of rotation.

The greatest problem is *the fracture of both forearm bones*. It constitutes 5% of all fractures and, according to Eliason<sup>2</sup>, 50% of his 744 cases occurred in the lower third of the forearm. The generally accepted treatment today is the skeletal traction according to Bohler, obtained by some sort of a screw traction apparatus, with fixation of the distal forearm bones and of the olecranon being the basic principle. The Anderson traction apparatus is a convenient instrument which likewise effects reposition readily under local anaesthesia by double skeletal transfixion.

There is a great discrepancy as to the position. Scudder<sup>3</sup> advises supination, Helferich<sup>4</sup> the mid-position, while others, like Levinthal<sup>5</sup>, advocate complete pronation in the lower third. DeCosta advocates pronation in fractures near the wrist. The supination position serves best in fractures of the upper third, the mid-position, in fractures of the lower and of the middle third. Synostosis of the two bones occurs, although rarely. The rotation deformity, especially pronation, is frequent.

It seems that closed reduction has remained unsuccessful in large number of cases. Overriding occurs and many cases have to be operated upon. Sowles points out that in cases of fracture of the shaft of the ulna there is almost always a fracture or a dislocation of the head of the radius, or in cases of fracture of the radius with overriding there is almost always a fracture of the ulna. In both instances operation is required.

In the treatment of already established deformities we consider first the angulation of the Colles' fracture, next angulations of the fractures of the forearm bones, and subluxation of either the upper or the lower radio-ulnar articulation.

The silver fork deformity which inhibits mostly flexion must be treated by open reduction and osteotomy. In cases of atrophy it is strongly recommended to use a bone graft together with the osteotomy. If union after osteotomy is merely delayed, Beck's bone drilling method may

be used. Reduction by open osteotomy and realignment is the method of choice. It has given almost uniformly good results in our series of cases and restored or at least improved the range of flexion and relieved discomfort and pain.

In the reversed silver fork deformity which is mostly produced by crank fracture, the procedure is similar.

For the dislocation of the lower radio-ulnar articulation the reconstruction of the lower articular ligament is the method of choice, but it is very difficult to be carried out and to procure safe anchorage. In several cases in which there was irreducible forward dislocation of the ulnar end which interfered with pro-and supination, we ankylosed the lower end of the ulna to the radius and then resected it about one-half inch from the shaft of the ulna, above the capitulum, thereby forming a new joint through which pro-and supinatory motion could play. This method was originally advised by Von Lesser<sup>6</sup> and Lauenstein<sup>7</sup>.

Fracture of the lower extremity of the ulna may be without displacement, in which case immobilization is all that is required. If displacement occurs, however, it is because the lower fragment is drawn by the contracture of the pronator quadratus toward the interosseous space, often rotating the fragment to 90 degrees so that the upper end of the ulna remains in supination whereas the lower end is in pronation. If this condition is not remedied, a vicious consolidation may take place, a serious obstacle to supination.

**Rotation disalignment of the radius.** Failure to adopt the mid-position or the supinatory in the middle and upper third fractures often results in pronation mal-alignment of the lower end of the radius, that is, the upper end stands in supination, the lower in pronation. Naturally, the supinatory power is lost. Such cases are to be treated by osteotomy, with restoration of the supinatory position of the radius.

## II. Disability in Forearm Fractures Due to Non-union

The causes of non-union are the following (Albee):

1. Failure of granulation tissue to bridge the gap because of interposition, or because of displacement, or because of diastasis.

2. Degeneration of granulation tissue into scar tissue because of poor nutrition and poor



activity of the osteoblasts.

3. Interference of the early granulation tissue by manipulation or by inadequate immobilization. This includes muscular stresses.

4. The traumatic interruption of the blood supply of the bone, both periosteal and endosteal (nutrient artery).

5. Infections, especially low-grade infections such as often accompany Lane plate or other foreign bodies.

6. The secondary absorption of a solid callus is rare, but it occurs when vascularization is restricted.

We can control displacement and diastasis by proper reduction, and proper immobilization, and we can assist the formation of early granulation tissue by refraining from undue and untimely manipulation; but we have only partial control over infection, for instance in compound fractures, by proper debridement, reduction and thorough immobilization (Orr's method), and there is little control over degeneration of granulation tissue due to malnutrition where there is traumatic destruction of the arterial blood supply to bone. In open reductions one therefore should always take care not to denude the bone more than absolutely necessary for the surgical procedure. Hyperemia of bone always results in decalcification, while increased calcification or sclerosis means the impairment of the blood supply (Watson Jones<sup>s</sup>). Delayed union shows absorption and lack of condensation. Non-union or pseudoarthrosis shows claw-like outgrowings at the ends of the bones, or the long tapering ends when there is diastasis; but always the medullary cavity closes up. In the forearm delayed union may still occur after three months. Six months after failure of union is a safe limit to establish definite non-union or pseudoarthrosis.

a. In simple fracture of the radius pseudoarthrosis is rare.

b. In simple fracture of the ulna pseudoarthrosis is also uncommon, except for fracture of the ulnar styloid.

c. In fracture of the lower shaft of both forearm bones there is more commonly seen a non-union of the ulna, rarely one of the radius. This is explained by Watson Jones<sup>s</sup> on the grounds that when after removal of the splint, that is after eight weeks, pro- and supination movements are begun, the lower radio-ulnar joint may be stiffened so that union actually occurs

in the weak point of union of the ulna. He therefore believes that a fracture of the forearm is not immobilized unless wrist joint and elbow also are included in the cast.

**The treatment of non-union.** Bier's hyperemia, the pounding method, and even the so-called Beck drill may be dismissed as inadequate; when there is established non-union or pseudoarthrosis only bone graft methods should be considered. At present there is a choice between the inlay and the onlay grafts.

1. Albee perfected the inlay graft technique, either as a straight inlay or as a sliding graft, especially for the forearm, as a double wedge and graft.

2. The onlay graft is recommended by Gill, Meyerding, Campbell, Speed, etc. It must be a massive graft held by beef bone screws. Reports are favorable. Campbell<sup>9</sup> obtained solid union of all bones in 91.5%; the radius 12 out of 13; the ulna 9 out of 10; and radius and ulna 19 out of 21.

### III. Degenerative Arthritis or Traumatic Arthritis Following Fracture of Forearm Bones

The arthritis following fracture of the lower end of the radius is either secondary to the circulatory changes, immobilization, and loss of function; or it may develop directly at the site of fracture when the latter enters into the joint. In many cases an arthritis of the radiocarpal articulation will occur. In spite of good alignment, almost invariably, if such is the case, one finds constitutional causes for it, such as advanced age, arteriosclerosis, etc.

Traumatic arthritis is usually located in the radiocarpal articulation and often also in the lower radio-ulnar joint, thus limiting not only the wrist joint motion but also pro- and supinatory movements. Unless the patient is old and the arthritis generalized, the outlook for the traumatic arthritis is not unfavorable. Considerable improvement can be obtained by physiotherapy and splinting. We do not believe that mobilization should be instituted very early, for instance, after the third or fifth day, in fractures of the radius, as advocated by some, but that consolidation should be waited for. It is important, however, to leave elbow and fingers free in simple fractures of the lower end of the radius and ulna, and the fingers in fractures of both forearm bones in general.



#### IV. Fracture Disability of the Forearm Due to Soft Tissue Contracture

Contractures following fractures of the forearm and especially of the radius are the most formidable and also the most frequent complication. Contracture in this instance is really a collective term for a number of different contractural changes in which the capsular tissues, the tendons, the sheaths, and the muscles are involved, either singly or in combination.

One may distinguish:

A. Primary traumatic contractures representing injuries to soft tissues acquired at the time of the accident.

1. Tendon and muscle injuries, traumatic tenosynovitis, due to trauma itself in compound fractures.

2. Subcutaneous tendon injuries.

B. Secondary traumatic contractures.

1. Simple capsular contractures due to position.

2. Secondary tendon ruptures due to degenerative changes in the tendons following trauma.

3. Secondary contractures from adhesive tenosynovitis following hematoma into muscles and tendon sheaths.

4. Inflammatory tenosynovitis in compound fractures from secondary infection.

Only the simple capsular contractures appear to be entirely preventable. The secondary tendon ruptures due to degenerative changes are only partially preventable inasmuch as their occurrence can sometimes be avoided by prolonged and careful splinting.

The secondary contractures from adhesive tenosynovitis and from muscle degeneration which follow hematomas in the tendon sheaths and into the muscles can be controlled by proper splinting and often by release of subfascial pressure.

So far as the inflammatory tenosynovitis in compound fractures is concerned, this requires debridement, prompt drainage and proper splinting.

Most common are the capsular contractures. They are due to position of the fingers, incidental to immobilization. They are caused by imbalance which exists between the flexory and extensory apparatus which permits the metacarpo-phalangeal joint to go into hyperextension. The most important single factor are the interossei.

When the metacarpo-phalangeal joints are flexed and the fingers extended, the intrinsic muscles of the hand relax from the central end. The position in the interphalangeal joints is controlled by the extensors of the fingers.

When the fingers are flexed and the metacarpo-phalangeal joints hyperextended, the interossei relax from the distal end and it is the long finger flexors which now control the position of the interphalangeal joints.

In the secondary contractures of the flexors due to hematoma or tenosynovitis the fingers go into strong flexion in the interphalangeal joints, while the resulting tension upon the finger extensors forces the metacarpo-phalangeal joints into extension.

When flexion contracture involves the wrist joint also, the rule applies that the contracture of the shorter flexors of the wrist prevails over the contractures of the long finger flexors, and the wrist is held in rigid flexion, thereby causing passive extension of the extensors and thereby inducing the claw-hand formation. The latter type of contracture is much more marked when the interossei are entirely eliminated, as in paralysis of the ulnar nerve.

In some comparatively young individuals in whom the fracture was associated with the usual silver fork deformity with radial deviation and shortening of the radius, we saw extensive radial clubhand deformity of such a degree that one had to assume an involvement of the tendon sheath, probably intravaginal hemorrhage leading to tendon sheath adhesions.

Generally speaking, in this type of cases with secondary contractures the outlook for restoration of motion, provided that the skeletal disalignment is rectified, is good under conservative treatment and rarely requires operative interference on the tendons themselves.

#### Treatment

It appears from the complex nature of contracture that preventive and corrective treatment must be based upon a good knowledge of the existing muscle mechanics. Splinting plays the most important part. But no single splint can control the situation in a compound contracture. Besides, the tendency to positional contracture is so great that no splint can be applied without intermission.

Easiest to deal with are the capsular contractures and the most effective method here is

elastic traction. It is remarkable, however, how readily the contracture yields, especially if splinting is supported by passive motion. Forcible breaking up of the joint leads nowhere. When the resistance is too great for splints alone, posterior capsulotomies (with lengthening of the extensor tendons if necessary) will usually produce results.

If there is flexion contracture of the wrist (for instance with radial deviation in malunited Colles'), it is often the key to the situation; that is, the release of the flexion contracture also releases the claw hand. At any rate, one must start correction peripherally. One must straighten out the fingers first, then the metacarpophalangeal joints which usually will yield to appropriate splinting; then the flexion contracture of the wrist can be corrected and if the flexors of the wrist offer too much resistance one should not hesitate to lengthen them.

Pronation contracture from mal-alignment is difficult to handle. After the osteotomy for correction of the pronation is performed, one is surprised to meet with great resistance, not only from the long pronators but also from the quadratus and the interosseous membrane.

Secondary tendon ruptures may follow tendon degeneration in the wake of fractures of the wrist. Here belongs the so-called spontaneous rupture of the extensor pollicis longus, which typically follows fracture of the radius. (Pforringer and others insist that under the effect of a sudden and very great force a rupture of even a very resistant tendon may occur. Yet, usually the fracture of the lower end of the radius constitutes a pathological factor favoring so-called spontaneous tendon rupture.) After a certain interval a minor mechanical event may produce spontaneous rupture of the tendons, either of the extensors of the fingers or of the extensor pollicis longus of the thumb. We often see this rupture following the course of ordinary occupation (drummer's palsy); there is a distinct click and then there appears a sudden disability to extend and abduct the thumb. This spontaneous rupture of the tendon is not a surprising event when we consider that the tendons are among the poorest nourished portions of the human body. After the twentieth or the twenty-fifth year the nutrition of the tendons suffers greatly. New-born and children and young individuals up to twenty-five have a double supply, one from the

arteries which runs in the interior of the tendon and one coming from the vascular supply of the peritendineum externum.

Cases of partial ruptures of the extensor tendons and longitudinal tears which buttonhole the tendon and cause the two halves to glide laterally toward the flexor side of the fingers have been reported. In late rupture of the tendons one usually finds the distal end of the tendon frayed out and splintered up immediately below the ligamentum carpi dorsale, while the central end is often retracted for as much as 6 cm. and is hidden under the ligament so that it is often very difficult to find it. The so-called spontaneous rupture of tendons, with or without fracture of the radius, particularly the so-called ruptures of the extensor tendons which lead to the drop phalangette, must always be considered with suspicion. The healthy tendon usually is strong enough to tear out a splinter of bone at the point of its insertion. The "spontaneously" ruptured tendon is usually a degenerated one, the degeneration being due to the hemorrhage into the tendon sheath at the time of the fracture, injuring the mesotendineum and peritendineum externum. The usual time interval between the fracture and the rupture of the tendon is from one to three months.

Inflammatory tenosynovitis following compound fractures constitutes the most difficult chapter of reconstructive surgery. It is not the place here to go into details. Suffice it to say that tendons with broad general adhesions within their sheaths are hopelessly lost and complete substitution has to be made which means a new bed, a new tendon, and a new gliding apparatus, and also new pulleys to control the direction of the pull. This is always a very difficult task and the results are almost uniformly poor, though in the hands of brilliant surgeons such as Sterling Bunnell or Sumner Koch quite remarkable results are obtained. The results of tendon substitution in the palm are much better, as are also those in the much simpler situations of localized adhesions or destructions at the wrist or forearm.

#### V. Fracture Disabilities of the Wrist Complicated by Nerve Lesions

All three nerves of the forearm may be involved in simple fracture. Probably the most frequent type are the neurotrophic disturbances with glossy skin, associated with marked motor and sensory impairment. It is remarkable how



trophic disturbances will change when the deformity is corrected.

The most common complication is the combined median and ulnar involvement, resulting in areas of anaesthesia or hypaesthesia of the tips of the fingers. Less frequently one finds paraesthesia of the sensory branch of the musculo-spiral nerve at the dorsum of the hand.

**The reflex atrophy or Sudeck's atrophy.** The nature of this type of atrophy is still in doubt but it is believed to be based upon circulatory influence. It has nothing to do with the direct degenerative traumatic arthritis. There is a preservation of the joint contours and the joint cartilage. The atrophy is in the interior of the cancellous bone and many osteoclasts are found. This type of atrophy leads to severe functional impairment of the wrist in spite of good alignment. (This post-traumatic painful osteoporosis or Sudeck's atrophy has been especially studied by Leriche and his school.) It seems to be the result of an active hyperemia of vasomotor origin. The cases are characterized clinically by a stiffness, pain, functional impairment and sometimes by muscular atrophy and edema. The diagnosis can be made readily from the X-ray: Diffuse lesion involving the carpus, metacarpus, phalanges, as well as the lower ends of the radius and ulna. It seems paradox that the sympathectomy as advocated by Leriche, producing as it does an active hyperemia, should be of value in this condition. However, Leriche states that the pain does disappear promptly and the movement becomes free. Little can be expected from protracted conservative treatment and physiotherapy, and the outlook is doubtful. Severe constitutional sources are usually in the background. Fortunately, these cases are rare. They are exceedingly difficult to treat, and in extreme cases ramisection of the axillary plexus or arterial sympathectomy may be tried.

### Resumé

The situations discussed in this paper are judiciously limited to injuries of the forearm bones, intra- and extra-articular fractures, with the exclusion of injuries to the elbow and the carpus itself. This constitutes by no means all the fracture deformities of the wrist and forearm. An attempt is made to demonstrate the multiplicity of causes which lead to disability and to evaluate the individual importance of each of these factors. That the perfection of the reduc-

tion methods will reduce these deformities substantially there should be no doubt. However, there remains a number of conditions which can not be easily controlled even by consummate skill and experience of the operator. They are on the whole in the great minority; primary injuries to circulation to the nervous system; primary contractures and infections. When they do occur, they are of even greater influence upon disability than is the disalignment itself. Prophylaxis or early treatment of contractures is the key to the situation. For primary nerve lesions which do not recede with rest, we recommend, in general, neurolysis or nerve repair; for traumatic arthritis, a period of short immobilization followed by careful and supervised graded mobilizing measures; and for post-traumatic atrophy, splint immobilization. Judicious practice of physiotherapy, combined with consistent splinting, elevation of the arm, freedom of the fingers, passive motion and exercise are points of greatest importance.

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# The Treatment and Prevention of Pneumonia:

## The Responsibility of the Doctor\*

JOHN A. WENTWORTH, M.D., Hartford

The instance of pneumonia is greatest in fall, winter and spring — associated with bad, or changing, weather conditions and with the time when all types of respiratory infections are prevalent. It nearly always follows some type of upper respiratory infection or disease, especially a cold; and its prevention depends directly on lessening the incidence of these infections, better management of congestive heart failure, prevention of measles and whooping cough, control of alcoholism and, in event these conditions occur, on treating them early and adequately. Those ill with colds should be advised to remain at home for a few days, to isolate themselves and to avoid contact infection. Attendants, whether physician, nurse or friend, in caring for any acute respiratory infection, should exercise adequate precautions to protect themselves from the disease and to avoid its unnecessary transfer to others. People with a previous history of severe respiratory infections and of serious or repeated pneumonia should be especially careful. Sometimes removal to a southern, warm climate, during the bad New England weather, is advisable. Strict attention to one's health at all times is important. Cod liver oil, sun lamps and adequate diets are of value in prevention of respiratory infections. Vaccines probably do no harm, and they may lessen the instance of colds and their duration. Vaccination against pneumonia has been definitely advantageous.

When pneumonia occurs a successful outcome depends on an early diagnosis. In persons previously sick with a cold who come down suddenly with chills, pain in the chest and bloody sputum, the diagnosis of pneumonia is practically certain. Pneumonia-consciousness will lead us to the underlying conditions in many cases in which the signs are slight, in which a less

serious pleurisy or bronchitis might be considered or in one with gastrointestinal, urinary or central nervous system symptoms where an entirely different disease might be suspected. Marked dullness and bronchial breathing are relatively late findings, while fever, increased respiratory rate, slight cyanosis, localized rales, changed breathing and pleurisy often are the findings upon which a tentative diagnosis must be made and treatment started. Sputum must be obtained at once and examined for pneumococci, and, if present, typed. Cultures of the sputum for other organisms should be carried out at the same time. Here the various laboratories connected with the Boards of Health and hospitals are helpful. The sputum should be coughed up and represent secretion of the bronchial tree, but, if this is not available as is often the case, cultures taken from the nose, pharynx or larynx may be inoculated into broth and later typed, if pneumococci are present. Not infrequently a most innocent looking sputum may be useful for examination. Laboratories or individuals undertaking these determinations should be trained, experienced workers, conversant with Neufeld and mouse methods of bacteriologic study. Occasionally multiple infections of pneumococci are present; and the organism which is most prevalent, or the one which is obtained from mouse examination, is usually the invading organism.

Hospitals are in a position to offer very much more in the way of diagnosis and treatment to pneumonias and pneumonia suspects than home. I believe that all patients have a better chance for prompt and successful recovery in hospitals, but their admission must be early. Hospitals are prepared to assist greatly in diagnosis by blood cultures, X-ray examinations, electrocardiographic or special methods of examination.

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Too, therapeutic procedures, impossible at home, can be carried out. In as much as it has been quite clearly shown that in pneumonias, where serum may be given early and in adequate amounts, the mortality is tremendously lowered, complications prevented and the course of the disease much shortened, it is the first duty of the physician or nurse to obtain an early typing of the sputum and start serum therapy. At present serum is available for types 1, 2, 4, 5, 7, 8 and 14. In the first 24 hours of pneumonia, possibly excluding type 2, the mortality with specific serum should be around 5% which is about 1/3 the rate of all serum treated cases, regardless of the day of the disease, and 1/6 the mortality in non-serum cases. Now serum may be advocated on any day of illness.

In giving serum every precaution should be taken to prevent anaphylactic shock. Large amounts of serum should be given, varying from 100,000 units in uncomplicated types 1, 5, 7, 14 to 250,000 or 350,000 units often in type 2, and in any late treated type with a bacteremia, or specific pneumococcic complication. Pneumonia treated in 12 to 24 hours from the onset may be aborted entirely by early serum. If serum has been given early in adequate doses, and there is not a therapeutic response, an explanation must be found in incorrect typing, an overwhelming infection or a serious complicating disease of pneumococcic or other origin. Important aids to serum therapy include excellent nursing care, more or less routine use of oxygen, parenteral fluids and quiet. Digitalis now is used only in cases of heart failure. Stimulants and over-treatment must be guarded against. In streptococcus pneumonias prontosil, in full doses, is indicated as a therapeutic weapon of value. In type 3 pneumonia it has a less specific effect but should be used in view of cases of recovery with this medicament. Associated medical diseases of every kind, as diabetes and nephritis, or surgical conditions require their proper, prompt management and maybe a deciding factor in the outcome if neglected. Pneumothorax treatment seems to be much less useful than had been anticipated. X-ray treatment has been carried out in pneumonia, but its place, at present, seems to be entirely experimental. With the use of rabbit serum, which is being perfected rapidly, if severe thermal reactions can be overcome, more spectacular results in the serum

treatment of pneumonia may be expected. Type 2 serum is the least effective of specific serum. A leucopenia, or low white count, has been looked upon as a poor prognostic omen; and frequent injections of liver extract, intramuscularly, may possibly increase the white blood count and so assist recovery. Skin tests and examination of the blood serum for protective bodies can be done to determine when sufficient serum has been given.

A prognosis in pneumonia depends much on the doctor and nurse who diagnose the disease at its inception and carry out, conscientiously and well, intelligent treatment and vigilance.

Pneumonia is a serious, infectious disease, contagious and not infrequently occurring in mild epidemics. Its prevention is possible to a great degree. When it occurs, it is an emergency. Serum in suitable cases given early in sufficient doses will lessen the mortality to about 10% or under, greatly shorten the course of the disease, diminish or even clear up pneumococcic complications and reduce very materially the cost of the illness. Serum and proper care at any price are cheap in pneumonia. The state has provided excellent diagnostic facilities, the utmost co-operation as well as serum for those unable to pay. Types 1 and 2 sera have been supplied and a few of the less common type-specific sera. To carry on the prevention and the successful treatment of pneumonia in this state adequate funds must be provided. The returns in health will be many times multiplied.



#### EXPERIENCE WITH SULPHANILAMIDE IN ENGLAND

Colebrook of London has arrived at the conclusion that some patients have an idiosyncrasy to sulphanilamide. We quote: "It seems desirable that these drugs should not be sold over the counter, and that they only should be used on medical prescription, and rarely given for more than two weeks. They not be used as a 'shot in the dark' for the treatment of infections in which we have no reason to suppose the drugs would do any good." This writer further states that morbilliform rashes following the use of sulphanilamide have not been observed in England as in America. As with "606" a less toxic and less curative substance may be produced. —*Proc. Roy. Soc. Med., Dec., 1937.*

# The Treatment of Early Syphilis

JOHN H. STOKES, M.D., Philadelphia, Penn.

The present day systems for the treatment of early syphilis are the product of a decade of investigations from two sources, the Syphilis Commission of the League of Nations, and the Cooperative Clinical Group with the United States Public Health Service. Their publications supply the factual basis for the following statements derived from material numbering into the thousands of cases.

Treatment of early syphilis (up to and including the second year of the infection) should be conducted on the following principles.

1. It should be begun at the earliest possible moment that diagnosis can be made, after a physical and urine examination.

2. The drugs used should be arsphenamine, "606", or neoarsphenamine, "914", and bismuth subsalicylate (not mercury). Substitution of other arsenicals is still experimental, and requires special knowledge.

3. The seropositive primary stage of syphilis is the most prone to relapse and hence deserves special attention and more prolonged treatment if the slightest anomaly of behavior appears.

4. Treatment must be continuous — without rest intervals during the first year. Only after the arsenical phase ends may rest periods be given.

5. Treatment should be alternating; each course of arsenical followed immediately by a course of bismuth subsalicylate, with or without "overlapping" (see below).

6. The blood test should not be used as an indicator for starting or stopping or for permission to resume sexual relations. By the 16th week the test should be negative. If it reverses too soon, it suggests low resistance; if weak positives occur among negatives it warns of relapse tendency; if the blood refuses to become negative, it means resistant manifestations, especially in the nervous system.

7. The spinal fluid must be examined (Wassermann, protein, cell count, colloidal test) be-

tween the sixth and the twelfth month. If abnormality appears, have consultation.

8. The average effective treatment for early syphilis consists of 30 arsphenamine or neoarsphenamine (606 or 914) injections, the average adult dose (neo) being 0.3 gm. initial, 0.6 to 0.75 grams subsequent. The average number of bismuth subsalicylate injections is 40 to 60 (preferably the latter). The average dose is 0.2 gram of the salt per injection, equivalent to 2 c.c. of a ten per cent suspension. The standard interval between injections both of arsphenamine and bismuth is one week, shortened by a day or two at the outset of the first arsenical course.

9. Employ this same system for early syphilis in the seronegative primary stage (diagnosed by darkfield) and in the secondary stage. Prolong it by 10 arsphenamine and 20 or 30 bismuth injections if weak positive or persistent strong positive blood tests appear, in seropositive primary cases especially. A case that is negative before and positive after the first arsphenamine injection is a *seropositive* primary.

10. Do not do provocative or therapeutic tests on seronegative genital lesions. Make the diagnosis of syphilis or treat as if you had.

11. The following diagram fairly represents a standard system of treatment for early syphilis, with some intensification of the bismuth phase, as a safe modification.

O = Neoarsphenamine, 0.3 to 0.75 gram.

X = Bismuth salicylate, 0.2 gram (oil suspension.)

The intervals between injections are one week unless otherwise stated.

000 in 10 days followed by:

BWR	BWR	BWR	BWR	CSF
0000000	00000000	00000000	000000	BWR
XXXXXX	XXXXXX	XXXXXX	XXXX-	
XXXXXX	6 weeks rest,	XXXXXXXXXX	6 weeks rest	XXXXXXXXXX
				8 weeks rest



XXXXXXXXXX, then two years observation with blood tests quarterly.

12. At the close of treatment observe the patient for two years, with blood tests quarterly. Repeat spinal test only if blood becomes positive.

13. Treatment for the pregnant woman with early syphilis may follow the above system but the doses should be reduced one-fourth to one-third, the urine and blood pressure being tested weekly, and the treatment closing with an arsenical just before delivery.

**Reaction prevention** is especially important in early syphilis because of the intensity and duration of the treatment. Use the following principles:

1. In intravenous work, inject *extremely slowly* (Mapharsen an exception.)

2. In intramuscular work, inject into the upper outer quadrant of the buttock, aspirate on the needle, inject slowly, massage the injection site long and deeply after injection.

3. Before each treatment inquire about (a) purpura and bleeding gums; (b) itching and rash; (c) gastrointestinal disturbance, dark urine, white or black stools.

4. Before each treatment, look at face, elbow flexures and wrists for rash and purpura, in the mouth for stomatitis, purpura.

5. Give a diet high in protein and fat, low in carbohydrate.

6. Examine the urine every second week.

If trouble starts, give glucose intravenously and liver extract intramuscularly and stop treatment pending advice.

8. The drug-intolerant patient is more often the product of bad handling than idiosyncrasy; the relapser and irreversible positive blood Wassermann, of lapse and irregularity of treatment.

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### CHIROPRACTORS DEFEATED IN COLORADO

The so-called "health freedom" amendment was recently denied a place on the coming November election ballot in Colorado by Secretary of State, George E. Saunders. This means that the chiropractors' initiative petition for a constitutional amendment has been lost and a victory won for decent government and scientific medicine.—*Rocky Mt. Med. Jour.*, Feb., 1938.

### LIVELY INTEREST IN PHYSICIANS' TOUR OF AMERICA

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# Obstetrics in the United States: Today and Tomorrow

ROBERT M. LEWIS, M.D., New Haven, Conn.

A recent number of the Journal of the American Medical Association (Vol. 110, No. 9, p. 656, Feb. 26, 1938) publishes in full a statement sent to President Roosevelt by Miss Josephine Roche, Chairman of the Interdepartmental Committee to Coordinate Health and Welfare Activities. This is entitled "A National Health Program, and Some Proposals Towards its Design." We urge all our subscribers to read this and to consider carefully all its implications.

The data and arguments presented in paragraph III dealing with the need for better maternal and child health services were discussed at length at the conference of the Children's Bureau of the United States Department of Labor held last January.

Nearly 500 were present at this conference. Health Officers, representatives of National Organizations, representatives from Medical Societies, from Child and Maternal Health Organizations, and others especially interested came from 44 different states, Alaska and Hawaii, to join in the discussion. Women constituted about two-thirds of those attending.

Provisions in the Social Security Act allot twenty-four and three quarter millions of dollars to the states to be used for the care of dependent and needy children. An added \$8,150,000 are appropriated to be administered by the Children's Bureau through the various states. \$3,800,000 of this sum are provided for maternal and child health services, \$2,850,000 for services for crippled children and \$1,500,000 for child welfare services.

Among the speakers who addressed the meetings were: Miss Perkins, The Secretary of Labor; Miss Lenroot, Chief of the Children's Bureau; Dr. Martha M. Eliot, Assistant Chief of the Children's Bureau; Dr. Thomas Parran, Jr., Surgeon General of U. S. Public Health Service; Drs. Jennings Litzenberg, Horton Casparis, M. E. Davis, and F. J. Underwood. Dr. Fred L. Adair, Chairman of the Maternal Health Division of the Medical Advisory Board of the Children's Bureau presided over the panel to start discussion.

The high countrywide maternal mortality rate of the United States as compared with that of other countries was stressed. Government economic studies indicate that one-third (890,000) of the approximately two million annual births in this country are in families on relief or

with a total annual income less than \$750. One-half are on relief or have less than \$1000 income per year.

Here we find the highest mortality rates among mothers and babies and also the least good medical care. 190,000 of this group of births occur in medium sized or large cities. 650,000 occur in rural areas or towns with less than 50,000 population. The highest birth rates occur in areas where economic conditions are least favorable. In 1936 250,000 women were delivered without a physician's care, and of these 15,000 had no care except that of the family or neighbors. In the great majority of the million births attended in the home each year by physicians no nurse aids in caring for mother or child. In 1936 in urban areas 72% of all births occurred in hospitals, in rural areas only 14%. In this country ten million people live more than thirty miles from an approved hospital, often where road conditions render emergency transportation impossible, yet between 150,000 and 200,000 births take place in this group yearly. Since 1915 the country-wide birth rate has declined from 25.1 to 16.5 (estimated for 1937). It is estimated that at least one-half of the infant and maternal deaths occurring in the country could be saved by adequate skillfull obstetrical care. The death rate from childbirth among negro women is nearly twice as great as that among white women. (9.6 per thousand live births as compared with 5.4).

It is obvious that such an income leaves no room in the family budget to pay for adequate medical care during pregnancy and delivery. In many of our cities clinics and hospitals share the load of practicing physicians by caring for women unable to meet the cost of prenatal care and confinement. In many rural areas however, there are no such facilities. The thanks of the patient, ten dollars or a sack of potatoes are often the obstetrician's reward for a successful delivery, a thirty mile drive and a sleepless night. In such circumstances it is not economically possible for the practitioner to give adequate prenatal and general obstetrical care. The results speak for themselves in our high national maternal mortality figures.

More than 14,000 women die from causes connected with childbirth. More than 75,000 stillbirths occur and more than 69,000 infants die during the first month of life. In 1935 there were recorded 12,182



maternal deaths, giving for the year a mortality rate of 57 per 10,000 live births. Individual states varied in their figures, Arizona having the highest maternal mortality of 90, Rhode Island and New Jersey 40. Figures quoted at the conference showed that Connecticut in 1936 had a maternal death rate of 41 per 10,000 live births. Only New Jersey and Rhode Island with the rate of 40 each bettered this figure. The Connecticut rate for 1937, just released, was 29, an extraordinarily enviable record. In 1936 the Connecticut infant mortality rate stood at 42 per 1000 births, the lowest for any state.

During the conference the part that poverty plays in preventing women from securing adequate medical care during pregnancy was heavily stressed. To some of us it seems that public ignorance which so often accompanies poverty is of greater import than is generally realized. This factor was mentioned but probably not fully appreciated.

At the conclusion of three days of meeting the Findings Committee made the following recommendations;

To increase professional resources and improve obstetrical care throughout the nation there must be:—

Better undergraduate training and education for nurses and practitioners of medicine; better graduate educational facilities for nurses and physicians; adequate provision for training nurses and physicians for special obstetric and pediatric service.

Better distribution of competent physicians, and more specially trained graduate public health nurses.

Hospitals caring for maternity cases should make their facilities available for better education of physicians and nurses.

In addition to what is already being done, there should be a further development of public health services in both cities and rural areas for the conduct of complete service in maternity and for newborn infants, through utilizing available competent service under both private and public auspices, extending and improving the public services when they are not adequate to meet the need.

The local community should provide maternal and infant care as needed, as part of its public health responsibility.

The State should give leadership, financial assistance, specialized service, and supervision in the development of local services; the Federal

Government to assist the states through financial support, research and consultant service.

To carry out such a program, the committee concluded that Federal participation would be necessary and that larger sums than formerly would have to be appropriated for maternal and child health by the Government under the Security Act. These resolutions were approved and presented to President Roosevelt by a sub-committee.

These resolutions provide much food for thought. Local studies in states where the maternal death rate is unduly high indicate that only too often deliveries are conducted without regard to the fundamental principles of good obstetric practice. Such inquiries disclose that patients often are not shaved or cleaned before delivery. We are astounded to discover that a considerable number of physicians do not customarily trouble to wear sterile rubber gloves. Unindicated forceps deliveries through cervixes only partly dilated are not rare causes of disaster. It seems unlikely that better teaching of obstetrics to graduates or undergraduates will greatly affect this situation. Men who have learned any obstetrics know well enough the danger of these errors. Unwillingness to take time and trouble rather than ignorance are often responsible for obstetric tragedies. In such instances lack of conscience on the part of the physician rather than a lack of education is to blame.

Miss Roche's report states that 60,000 babies with congenital syphilis are born here annually. This situation will be enormously improved with all physicians in this country supporting the present antisyphilitic campaign. If routine Wasserman examinations can be obtained in every early pregnancy adequate treatment will do away with congenital syphilis. Connecticut shares the credit with but few other states of requiring premarital Wasserman examinations of both parties to a marriage. The American Medical Association may well bestir itself to bring pressure to bear on every state legislature to pass similar laws.

Eclampsia, usually classified as "albuminuria and convulsions", annually accounts for about one-quarter of the twelve to fourteen thousand maternal deaths in this country. The very great majority of these can be saved by competent

physicians if doctors and the public together appreciate the importance of the customary routine frequent examinations of urine along with blood pressure readings throughout the course of pregnancy. The physician who neglects to give his patients such care is surely guilty of criminal negligence. Great effort should be made by the medical profession to teach the public the true value of this kind of prenatal care. At the conference various suggestions were made by which this end might be accomplished. The possibilities of using the newspapers, magazines, radio and moving pictures were explored. Probably the best practical suggestion put forward was that the various Boards of Health throughout the nation should give each woman with her marriage license a carefully worded letter telling her why she should consult her doctor early in pregnancy and what he can do for her. We can think of no one measure that would give better promise of reducing both our infant and maternal mortality figures.

In 1937 the Connecticut mortality record of 29 maternal deaths per 10,000 live births is the best ever here reported. It is nearly, or quite, the lowest figure ever reported for any state\*, and better by nearly a half the national mortality rate. Lest we adopt a holier than thou attitude toward other states with higher maternal mortality rates, let us remember that Connecticut has advantages that many other states have not. Among these we may mention the high average intelligence of our citizens; relative great wealth which provides excellent hospitals at strategic points as well as a good system of roads; relative lack of poverty. (The Connecticut working man on the average earns three or more times as much as does the laborer in the South.) Finally, with all due modesty let us give credit where it is due — to the able physicians of this state who were responsible for the deliveries of its women.

Quite evidently a long, intensive campaign by the medical profession will be necessary before our maternal death rate even approaches that of the Scandinavian countries. (1932, Sweden 26.6, Norway 26.4, U. S. 63.3 per 10,000 live births.) It is to our interest to determine how much of this program shall fall into the hands of state and government agencies. In certain rural districts of our country tuberculosis is left largely

to the medical departments of county and state agencies. It is possible that the obstetrical problems of some of our financially handicapped areas may some day be handled in the same way by the choice of their local medical profession.

In any event it behooves us, the medical profession, to think earnestly and move vigorously to plan and organize better countrywide obstetrics for which there is a vital, immediate, and pressing need.



### ELMCREST MANOR OPENS ITS DOORS

A Sanitarium for the treatment of nervous patients has been opened in Portland, Connecticut, by Dr. Carl P. Wagner, who has taken over the former Alfred Gildersleeve estate on Marlborough Street.

Dr. Wagner recently completed direction of the work of remodeling the large dwelling on the property and his sanitarium is receiving patients.

The head of the new institution, Elmcrest Manor, is a graduate of the University of Nebraska. He was instructor in psychiatry at the University of Colorado School of Medicine until 1930, when he became instructor in the same subject at Yale University, where he remained until 1932, when he became senior psychiatrist of the Hartford Retreat.

He felt there was a need in this section of the state for an institution such as he now has established, a sanitarium having the normal, pleasant, homelike surroundings which are so vitally important in the treatment of nervous patients.

The former Gildersleeve home, built in 1815, has been transformed, without loss of its colonial flavor, by decorators. Facilities allowing close attention, individually, with physical therapy, recreation and physical education plus medical care, are present.

The rooms, all furnished in the colonial manner, have been so arranged that none have less than two exposures to the exterior. There are several new type semi-private rooms, the remainder being private rooms.

The grounds of the estate provide ample space for patients to stroll. Large flower gardens, trellised walks, and many huge elms dot the estate. In all, eight acres are available, and numerous improvements, including building of tennis courts, are planned by Dr. Wagner.

\*Returns from many other states for 1937 were not available when this was written.



# The Newer Anesthetic Agents and Methods Used in Present Day Practice\*

RALPH M. TOVELL, M.D., Hartford Hospital, Hartford, Conn.

Following the discovery approximately 90 years ago, of the value of ether and nitrous oxide as anesthetic agents, surgical procedures and methods were developed rapidly but for many years the practice of anesthesia was allowed to lag by the medical profession. Within recent years however progress in anesthesia has been accelerated and the evolution of new agents and methods for their administration has become so rapid that one is justified in saying that a revolution is in process of accomplishment. Several factors have contributed to this trend.

Patients are expecting and demanding more from the medical profession for relief from pain. Physicians now have a wide choice of agents and methods, and an attempt to meet the demands of patients has been made. It is no longer necessary to make the patient accept a fixed routine of anesthesia but proper agents and methods for their administration may be chosen to fulfill the patient's demands regarding sedation and to facilitate the surgeon in his work. As the medical profession has become more overcrowded, search for new sources of revenue has led physicians to explore the field of anesthesia. The financial emergency of the great depression intensified this search. The economic urge influenced anesthesia in another way. A method for the conservation of gases during the administration of anesthetics by inhalation was reported by Waters<sup>9</sup> in 1924, but it was not widely employed until the need for economy was felt acutely during the worst years of the depression. This development warrants further discussion.

## Carbon Dioxide Absorption

Nitrous oxide, ethylene, acetylene, or cyclopropane may be employed for the production of general anesthesia. With each gas varying amounts of oxygen must be supplied. This oxygen fulfills two purposes: first, to dilute the

anesthetic gas from a toxic concentration to one which will produce surgical anesthesia; second, to carry on metabolism, and thus support life. With nitrous oxide little oxygen beyond that required to support metabolism is required but with a potent gas like cyclopropane the oxygen must make up approximately 80 per cent of the mixture in order to prevent the development of too profound anesthesia. It would be possible to maintain a definite level of anesthesia by having the patient breathe a mixture of an anesthetic gas and oxygen over and over again were it not for the development of anoxemia and for the accumulation of carbon dioxide. In order to prevent anoxemia a constant flow of oxygen must be maintained but unless accumulation of carbon dioxide is prevented, respiration becomes labored due to stimulation of the respiratory center. In order to obviate this difficulty several methods may be employed. The gases may be allowed to escape, thus carrying off the excess carbon dioxide, but this entails constant replenishment with new gases from the gas machine and this is an expensive method. Machines permitting intermittent flow and fractional rebreathing were developed but it was not until Jackson<sup>2</sup> devised a method whereby the carbon dioxide was removed by chemical means that the ultimate in economy was obtained. He found that by passing the gases through soda lime, the carbon dioxide could be removed and the same gases could be used over and over again without disturbing the character of the anesthesia provided a constant flow of oxygen sufficient to support metabolism was maintained. Waters<sup>9</sup> was the first to adapt this method to clinical practice and he advocated an apparatus of the to-and-fro type, while Sword<sup>6</sup> advocated the use of apparatus of the circuit type. Either type may be attached to a gas machine through which the flow

\*Read before the Franklin County Medical Society at a meeting held in the Franklin County Hospital, Greenfield, Mass., September 14, 1937.

of oxygen may be regulated to 200 cc. per minute.

Aside from economy of operation, the carbon dioxide absorption method offers advantages. The control of depth of anesthesia is possible, and, irrespective of depth of anesthesia, the character of the patient's respiration may be controlled. When deep respiration during induction is required, it may be produced by allowing the patient's carbon dioxide to accumulate or carbon dioxide from the machine may be supplied. When shallow breathing is required to facilitate operative exposure, the carbon dioxide may be removed. Quiet breathing results. If necessary, apnoea of temporary duration may be produced. This may be accomplished, without paralysing the respiratory center by the production of profound anesthesia, by removing the carbon dioxide which is the natural stimulus to inspiration. Because respiration is quiet, the patient's energy is conserved. The gases soon reach body temperature and become moisture laden, the patient's body heat is conserved, and because the gases are moist, the danger of explosion due to static electricity is minimal. Because little gas escapes into the operating room the hazard of explosion from external sources is likewise minimal. Relaxation of precautionary measures against explosion is not, however, justified. The relative humidity should be maintained at a high level, preferably over 50 per cent, and when ethylene, cyclopropane or ether is being administered, the use of open flames, cautery, or high frequency equipment should not be permitted in the room. When the carbon dioxide absorption method is employed excessive mucus is seldom produced. When an efficient airway is maintained, minimal amounts of ether are required. This is particularly true when cyclopropane is employed. The method permits the extension of gas anesthesia to a class of patient to whom it was formerly economically impossible to administer gases. The method has also made possible the use of the more expensive gas, cyclopropane.

### Cyclopropane

The anesthetic properties of cyclopropane were reported by Lucas and Henderson<sup>4</sup> in 1929, and the gas was given clinical trial by Waters and Schmidt<sup>10</sup>. It is a colorless gas, which is heavier than air, and which has a characteristic sweet but not unpleasant odor. When its con-

centration in air exceeds 3 per cent by volume the mixture is explosive. The upper limit of flammability in oxygen is 50 per cent by volume.

The gas is a potent one, induction is rapid, and a period of excitement is seldom exhibited. Production of mucus is minimal. Stridor occurs when the operative procedure is undertaken before surgical anesthesia is established and when the concentration of cyclopropane in oxygen is excessive. Cyanosis does not occur unless mechanical obstruction is present. The lid reflex is quickly abolished; movement of the eye-balls ceases as the patient enters the second plane of the third stage of anesthesia. Respiration is quiet and inhalation decreases in amplitude as the depth of anesthesia increases. Apnoea occurs before the pupils dilate and without the appearance of cyanosis. Blood pressure is not unduly disturbed. The degree of relaxation approaches that produced by ether. When relaxation is not adequate, addition to the gases of a small quantity of vaporized ether will suffice to produce it. It is the opinion of the author that, when retardation of the pulse rate below 70 beats per minute occurs before adequate relaxation is obtained, the addition of ether vapor rather than an increase in the concentration of the cyclopropane is desirable. If an irregularity in rhythm of the pulse has occurred with the rate either above or below 70 beats per minute the concentration of cyclopropane should be reduced by the addition of an excess of oxygen. If relaxation is not adequate at this time, ether vapor should be added to the mixture.

The introduction of cyclopropane represents a distinct advance in anesthesia. The new gas is rapidly displacing ethylene. It is of particular value when relaxation is needed for patients for whom ether is contraindicated because of recent infection within the upper respiratory tract. Use of this new gas is indicated for patients suffering from severe cardiac debility. The dangers of a period of excitement can be avoided. To those patients exhibiting irregularity in cardiac rhythm, cyclopropane may be administered with less danger than can nitrous oxide, oxygen and ether. The advantages of an adequate supply of oxygen, and a quiet induction outweigh the danger of an accentuation of the cardiac irregularity. One should be prepared to add ether rather than continue anesthesia with cyclopropane in a concentration sufficient to add



to the cardiac embarrassment. For surgical procedures involving intrathoracic structures cyclopropane has been proven to be of particular value. The high concentration of oxygen which may be employed with cyclopropane assures adequate oxygenation. For those patients for whom supplementary anesthesia by inhalation is necessary following the induction of spinal anesthesia, cyclopropane is the drug of choice. Adequate anesthesia may be produced and anoxemia may be avoided even in the presence of lowered blood pressure and decreased respiratory volume. This same advantage may be applied in operative obstetric procedures. Caesarean section may be accomplished with the mother and baby assured of an adequate supply of oxygen. For deliveries, by the normal route, nitrous oxide combined with air or with oxygen may be employed to produce analgesia during the early stages of the labor. Addition of small quantities of cyclopropane increases greatly the analgesic properties of the mixture. When forceps are to be applied or delivery is imminent, anesthesia may be established by the administration of cyclopropane and oxygen. It is seldom that heroic measures are necessary in order to resuscitate the infant when this method of anesthesia is employed.

#### **Intratracheal Anesthesia**

Maintenance of an efficient airway is a requisite of surgical anesthesia produced by inhalation. This is particularly true when the carbon dioxide absorption method of administration is employed. Usually employment of simple measures such as insertion of an artificial airway suffices but in certain instances insertion of an intratracheal tube is necessary. For this purpose a Magill tube<sup>5</sup> has been proven most useful. Magill tubes can be purchased but may be prepared from connector rubber tubing. For the average adult a tube with an outside diameter of 1.1 cm. and which is 26 cm. (about 10 inches) in length is steamed into a curve. The bevel on the tracheal end is cut in the antero-posterior plane to facilitate passage between the vocal cords. A catheter of this type may be introduced by way of either the nose or mouth. The curve makes it possible to introduce the catheter by the nasal route and enter it in the trachea without the aid of a laryngoscope, in approximately 70 per cent of cases. If difficulty is encountered in this maneuver, a laryngoscope may be introduced and the tube may be guided into the glottis with

the aid of the blade. For intubation through either the nose or mouth, adequate relaxation is essential. With the tube in place anesthesia may be continued by the open drop method or any combination of gases may be administered by placing a mask over the patient's face. For operations involving the head, face or neck, it is preferable to attach the intratracheal tube directly to the delivery tubes from the gas machine. Choice of route for introduction of the tube is governed by the site of operation. Thus, encroachment upon the operative field may be avoided.

The method has certain advantages. An adequate airway is assured and constant control of depth of anesthesia is possible. Surgical anesthesia can be maintained with minimal amounts of ether, nitrous oxide or cyclopropane. The method assures the anesthetist control of the situation during operations involving structures of the head or spinal column. Control of aeration with the patient in the prone position is possible. Artificial respiration may be instituted promptly and efficiently when it is needed. For operations within the thorax control of intrapulmonary pressure is possible. To be assured of this advantage it is necessary to surmount the tube with an inflatable balloon. Introduction of the tube through the mouth is then desirable. When the balloon is inflated, a closed system may be established permitting use of the carbon dioxide absorption technique with full control of intra-pulmonic pressure. The balloon technique is also useful when the operative procedure involves structures within the upper abdomen. Aspiration of regurgitated material from the stomach may be prevented.

The method is one possessing wide adaptability, and is one which an anesthetist should be prepared to employ. Because description of the method is more laborious than the employment of it, it should be emphasized that complicated equipment is not necessary and the method may be employed successfully in conjunction with ether anesthesia produced by the semi-open drop method.

#### **Intravenous Anesthesia**

Search for a satisfactory anesthetic agent which might be administered intravenously has been carried on for many years. Fredet and Perlis<sup>1</sup>, in 1924, reported upon the use of somnifene. Other derivatives of barbituric acid have

been given clinical trial. Within recent years the search for short acting barbiturates has been successful and sodium n- methyl- cyclo- hexenyl methyl malonyl urea or epival soluble and sodium ethyl l-methyl butyl thiobarbituric acid or pentothal sodium have received favorable recognition. The latter drug is considerably more potent than the former and it is to pentothal sodium that I wish to call your attention. The drug possesses the same chemical structure as pentobarbital sodium or nembutal with the exception that one oxygen radical has been replaced by a sulphur radical. One gram of pentothal sodium in crystalline form is supplied in an ampule along with a companion ampule containing 20 cc. of sterile distilled water. A 5.0 per cent solution for intravenous injection is prepared by dissolving the pentothal sodium in the 20 cc. of distilled water.

The patient may be given  $1\frac{1}{2}$  (0.097 gm.) or 3 grains (0.19 gm.) of pentobarbital sodium the evening previous to operation. One hour before the time set for operation, morphine grain  $\frac{1}{6}$  (0.01 gm.) with atropine sulphate, grain  $\frac{1}{150}$  (0.0004 gm.) are administered subcutaneously and one-half hour later pentobarbital sodium, grain  $1\frac{1}{2}$  or 3, is given orally or rectally. Thorough preliminary medication is only necessary when the patient's temperament is such that sedation is warranted. For a patient undergoing an operation that is expected to exceed one-half hour in duration sedation is desirable. Less pentothal sodium will be required to maintain anesthesia and its action will be sufficiently prolonged to permit completion of the operation before more than one gram has been administered. If the operation is to be a short one, preliminary medication may be limited to atropine sulphate grain  $\frac{1}{150}$  (0.0004 gm.) administered intravenously after the patient arrives in the operating room.

The usual procedure is to prepare and drape the operative side. An arm is also prepared for intravenous administration of the barbiturate. The needle is inserted and not more than 4 cc. of a 5 per cent solution of pentothal sodium is injected during the first 20 seconds. The patient is asked to count and usually with this dose unconsciousness will be produced. For an aged or debilitated individual the initial dose should be less. The majority of patients are asleep within one minute and the operation may be begun.

The needle is kept within the vein throughout the operation and 1 cc. is administered intermittently to maintain anesthesia at the desired depth. The dose is regulated on the basis of the patient's reaction and the most important single sign one can observe is the patient's respiration. Too rapid administration will produce temporary respiratory depression. The drug is very rapidly destroyed in the body and adequate respiration will be re-established before cyanosis occurs provided a patent airway is maintained. If the condition persists, oxygen 90 per cent, and carbon dioxide, 10 per cent, should be administered under pressure until the drug is detoxicated. It is preferable not to exceed a total dose of 15.5 grains (1.0 gm.) for a single operation. Administration may be repeated on successive days if that is necessary. After administration of a small dose, consciousness is frequently regained before the patient leaves the operating room. After 15.5 grains (1. gm.) have been given, consciousness is usually regained from 10 to 15 minutes after the patient is returned to his room and recovery is seldom associated with restlessness. The patient can talk sensibly but he may fail to remember the conversation.

Pentothal sodium has been proven satisfactory for cystoscopic procedures<sup>7</sup>, extraction of teeth, enucleation of an eye, manipulation of fractures, dilatation and curettage, incision of abscesses and for the application of dressings to painful wounds. Its use is not indicated when relaxation of abdominal muscles is essential. Its use is contra-indicated in the presence of any condition interfering with the patient's aeration. If the glottis, larynx or trachea is constricted or if edema of the epiglottis is likely to develop during the operation, pentothal sodium should not be administered. In the presence of dyspnoea of pulmonary or cardiac origin, the intravenous administration of a barbiturate should be avoided. Patients suffering from tertiary syphilis seem to be particularly sensitive to the action of barbiturates administered intravenously and to these individuals pentothal sodium should be given with extreme caution. Children are susceptible to the depressant action of pentothal sodium on the respiratory centre. The initial dose, for induction of anesthesia in a child of twelve or less, should not exceed 1.0 cc. of a 5.0 per cent solution of the drug and throughout the operation careful note of the type of the child's



respiration should be made.

Pentothal sodium is gradually winning the acclaim of members of the medical profession, and is gradually gaining general recognition as a drug worthy of inclusion in the list of useful anesthetic agents.

### **Tribromethyl Alcohol or Avertin**

Tribromethyl alcohol was introduced in Germany in 1926<sup>8</sup>. It was first advocated as a general anesthetic agent but as its dangers became recognized its status has changed to that of a basal anesthetic agent, the usual intention being to reinforce its effect by administering one of the anesthetic gases with oxygen or with oxygen and ether.

In the main, results obtained with this agent have been good. Patients find it pleasing to fall asleep in bed following the administration of an enema and to awaken in their room without remembering the trip to the operating room. Rectal administration is not always a convenient or safe method. Particular care must be taken in preparation of the enema in order to guard against the formation of hydrobromic acid and acetbromaldehyde which will cause subsequent sloughing of the rectal mucosa. Cases have been reported where the patient was unable to eliminate the drug and death ensued in from three to four days without consciousness being regained. In the presence of disease of the liver, lesions of the large intestines or pulmonary tuberculosis with cavitation, administration of this agent is contraindicated. As other methods of producing amnesia and sedation gain preference, the use of avertin is becoming restricted.

### **Divinyl ether**

Divinyl ether<sup>3</sup> was introduced as a substitute for diethyl ether. In my limited experience with this drug, the impression has been gained that it is not as satisfactory in action as diethyl ether. This new agent is exceedingly volatile and much more potent than is diethyl ether. Induction of anesthesia is rapid and is not associated with excessive excitement. Recovery is rapid but nausea and vomiting occur frequently. Maintenance of surgical anesthesia may be difficult; laryngeal stridor is frequently encountered. Further study of the action of this drug will be necessary before it can be accepted as a generally useful anesthetic agent.

### **Comment**

Opportunities await young men who are inter-

ested in making anesthesia a life work. At the present time there are more positions for those who are adequately prepared than there are physicians to fill them. It is unfortunate that this is not more generally realized. It is now possible to obtain training in the clinical field and in research. Young men, when they come to choose a specialty, should not overlook consideration of a future in anesthesia.

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### **PREMARITAL BLOOD TESTS**

Data available by the State Board of Health for 1937 show considerably more cases of syphilis uncovered as a result of the premarital blood test than in 1936. Syphilis occurred about equally in males and females. From the standpoint of prevention of congenital syphilis the serology on females is most important.



Florida dedicated its first State Tuberculosis Sanatorium on January 3, 1938. It is located near Orlando. Dr. J. Arthur Myers, president of the National Tuberculosis Association, was the principal speaker at the ceremony.—*Jour. Fl. Med. Assn.*, Jan. 1938.

# Ovarian Pregnancy

R. ALFRED GANDY, M.D., Stamford, Conn.\*

One of the curiosities that the gynecologist must deal with is ovarian pregnancy. It fell to my lot during the spring of 1937 to operate upon two such cases. Because of the extreme rarity of this condition and because of a complicating ovarian cyst in each of my cases, I feel others may be interested.

The diagnosis "Ovarian Pregnancy" has been made for several hundred years. In the latter part of the nineteenth century it was demonstrated that many of the earlier specimens which fell under this listing were actually dermoid cysts. Although German authors have accepted ovarian pregnancy as a disease entity for many decades it was not until the beginning of this century that English and American authorities conceded such a possibility. It was held, and is today by many, that the ovary contains no tissue which can undergo decidual changes, so permitting the implantation and development of a fertilized ovum. Be this as it may, the fact is that today we do accept the condition ovarian pregnancy.

Prior to 1878 there were no generally accepted criteria for making this diagnosis in questionable cases, postoperatively. In that year Spiegelberg formulated four conditions which he believed should be complied with before a case could be called one of ovarian pregnancy. They were:

1. The tube on the affected side must be intact and normal.
2. The foetal sac must occupy the position of the ovary.
3. The mass must be connected to the uterus by the utero-ovarian ligament.
4. Definite ovarian tissue must be found in the wall of the sac.

These four requirements have stood for well over fifty years and today it is almost impossible to read a case report on the subject without having them referred to. Modifications and additions have been made and dropped.

Most authors maintain two possible types of ovarian pregnancy, primary and secondary. In the primary type the fertilization and development take place within a Graafian follicle; in the secondary type development takes place at some other point on or in the ovary.

There are several theories relative to the etiology of this condition. Since none are beyond question and are essentially problems of the pathologist, I will merely touch upon them. One maintains that an oophoritis or perioophoritis produces a thickening of the tunica albuginea. This makes it more difficult for the mature Graafian follicle to rupture. When the intra-follicular pressure becomes sufficiently great a pin point opening will result relieving the pressure but not permitting the ovum to escape. A spermatozoon may enter through this pin point opening and fertilization follow. Confirmatory evidence of this theory is that many of these cases have menstrual abnormalities and are relatively sterile. A second theory maintains there are endometrial implants on the surface of the ovary, either from embryonal rests or retrograde motion through the tubes. This tissue forms a suitable point for implantation of a fertilized ovum.

The statistics relative to the frequency of this condition are most unsatisfactory. Having carefully gone over twenty-five reports on this subject which have appeared in English during the last ten years, I would estimate that about one hundred authentic cases of ovarian pregnancy have been reported to date. I then adopted another method of determining the frequency of this condition. From six different sources I collected 1287 ectopic pregnancies occurring in the last fifteen years, and found that ten of these were proven ovarian pregnancies. This gives a frequency of 0.7%. In other words, for every 128 ectopic pregnancies, one ovarian pregnancy may be expected.

\*Department of Gynecology, Stamford Hospital, Stamford, Conn.



Before proceeding with a description of my two cases I wish to express a definite opinion I have formed relative to this subject; i.e., that ovarian pregnancy is more frequent than our present day literature would lead one to believe. I have had the experience of opening an abdomen, finding free blood, finding the bleeding point is a small tear in an ovary. Several sutures are inserted to close the tear and produce hemostasis. The blood is cleaned out of the pelvis and the abdomen closed. A ruptured corpus luteum or Graafian follicle is the usual diagnosis and no tissue is sent to the pathological laboratory for section. If the blood clot would be carefully expressed through the tear in the ovary and sections made of it, I believe we would find chorionic villi with greater frequency than they have been found in the past. With both of my own cases, had it not been for the accompanying ovarian cysts, neither ovary would have been excised and an incorrect diagnosis without sections would have followed.

**Case I.\*\*** Mrs. E. F. Admitted April 3, 1937; age 24; married for one year.

**Past History:** About ten years ago the patient had a cyst aspirated *per vaginam*. One year ago she had an abortion. This was not followed by pain or temperature.

**Menstrual History:** Periods began at the age of seventeen. They had been regular of the 28 3-4 variety. Bleeding and pain had always been slight.

**Present Illness:** The last period occurred March 9th, three and a half weeks before admission; it was entirely normal. For two weeks preceeding admission there was pain in the lower abdomen, most marked on the left side. The morning of admission she complained of headache, spots before her eyes, and fainted. No vaginal bleeding.

**Physical Examination:** The patient was brought to the hospital by ambulance; as she arose from the stretcher she bent forward holding her abdomen. Pulse 96; temperature 98°. Mucous membranes appeared of a normal color. The abdomen was slightly tender in both lower quadrants, most marked on the left. Pelvic examination revealed a cystic mass the size of a lemon in the pouch of Douglas. In front of this mass was felt a small, firm, antverted uterus. Because of the past history of a cyst that had been aspirated, a diagnostic Douglas puncture was made into the mass and thirty cubic centimeters of a yellowish fluid withdrawn. This fluid became gelatinoid upon cooling. The diagnosis of a left ovarian cyst was made. The next day the pain was entirely gone, so operation was deferred until after her period which was expected. On April 12th, nine days after admission, the expected period had not occurred. Re-examination showed the mass in the pouch of Douglas to be definitely larger than it was before aspiration. She was posted for operation the next day with the diagnosis of ovarian cyst and possible ectopic pregnancy.

**Operation:** The abdomen was opened through a midline incision. Free blood was found within the peritoneal cavity. The uterus, right ovary and both tubes appeared entirely normal. In the pouch of Douglas was a mass the size of a lemon, buried in free blood and blood clot. This was found to be attached to the uterus by the utero-ovarian ligament and also to the posterior layer of the broad ligament. The infundibulopelvic end of this mass was grey and represented the collapsed cyst wall, the contents of which had been removed by Douglas puncture. The utero-ovarian end was of a plum red color with a tear in it one centimeter long, through which projected old blood clot. The mass was removed and measured 8 by 6 by 6 centimeters.

Microphotograph of a section appears below.



**Fig. 1.** Well preserved chorionic villi in the upper part of the field, decidua like cells just below, and ovarian tissue occupying the remainder of the field.

**Case II.** Mrs. J. G. Admitted April 28, 1937; age 22; married for five years.

**Past History:** Four years ago the patient had a normal delivery. Two years ago she had pelvic inflammatory disease. Ever since she has had pain in the lower left quadrant of her abdomen.

**Menstrual History:** Periods began at the age of thirteen. They had been regular of the 28 4-5 variety. There had always been excessive bleeding and pain.

**Present Illness:** The last period occurred April 5th, three and a half weeks before admission. This period was five days late; except for that it was entirely normal. On April 27th, the day before admission the patient had a sudden severe pain in the lower abdomen, and nausea, both conditions persisting until admission. She did not faint and there was no vaginal bleeding.

**Physical Examination:** On admission to the hospital the patient appeared pale, mucous membranes were blanched; her pulse was 120 and temperature 98.6. The abdomen was tender and rigid throughout. Pelvic examination showed the uterus to be of normal size, shape and consistency; it was in a forward position. The pouch of Douglas was filled with an indefinite fluctuating mass,

\*\*Both of these cases were operated upon at the Womans' Hospital, Ujpest, Hungary.

within which could be felt a tumor mass on the left side. Because of the old history of pelvic inflammatory disease, the absence of vaginal bleeding, the absence of a missed period, an exploratory Douglas puncture was made. Dark blood containing many small clots was obtained. The diagnosis of ruptured ectopic pregnancy was made and the patient operated upon at once.

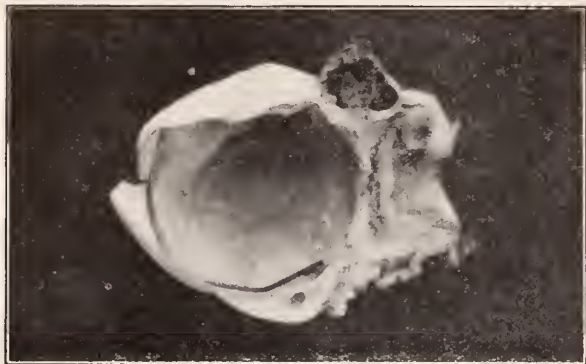


Fig. 2. The gross specimen. Ovarian pregnancy in upper right corner. Most of specimen is unilocular ovarian cyst.

**Operation:** A midline incision was made and free blood found within the peritoneal cavity. The uterus, both tubes and the right ovary appeared normal. Within the pouch of Douglas was found a mass which proved to be the prolapsed left ovary. The mass was mostly cystic but at one point there was a hemispherical plum colored projection two centimeters in diameter. There was a tear across this projection filled with blood clot. This mass was removed; it measured 6 by 5 by 5 centimeters.

Microphotograph of a section appears below.

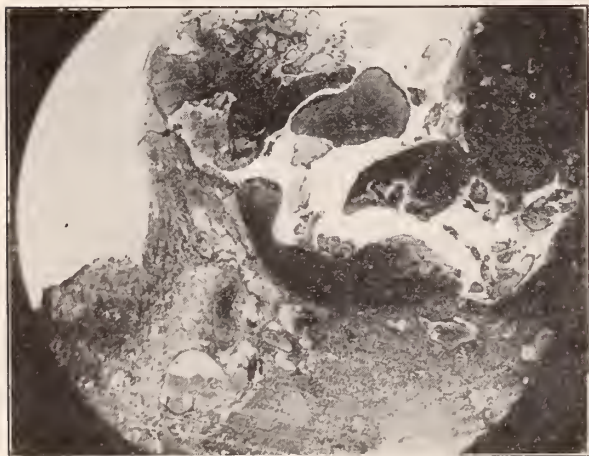


Fig. 3. Ovarian tissue below; blood clot above in which may be seen many well preserved chorionic villi.

### SUMMARY

1. In one-third of twenty-five case reports studied, the patient sought medical aid before

missing a period.

2. 0.7% of ectopic pregnancies, according to an analysis of over 1200 ectopics, are ovarian pregnancies.

3. I suggest that whenever an ovary is found with an unexplained tear in it, the contained blood clot be expressed and sent to the laboratory for microscopic study. By so doing I believe the incidence of ovarian pregnancy is going to be found greater than our present day literature indicates.

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 Statistics for 1287 ectopic pregnancies:  
 Randall, Wellbrock (above) 400 2  
 Danzis, Max (above) 224 3  
 Young, Hawks (above) 148 1  
 Hyams, M. N. (above) 187 2  
 Personal counting Ujpest, Hungary 230 2  
 Personal counting Rotunda Hosp., Dublin, I.F.S. 98 0

57 Broad Street



# Bacterial Otitic Meningitis

## A Case Report\*

EDWARD R. ROBERTS, M.D., Bridgeport, Conn.

This paper records an otitic illness following an upper respiratory infection, with septic manifestations, bacterial meningitis and recovery, in which the use of Sulfanilamide seems to have been a favorable influence. This otitic illness extended over a period of 49 days, to include 36 days of hospitalization during 26 days of which the patient was desperately ill.

S. R., male, age 38, was admitted to the Bridgeport Hospital on December 26, 1936 complaining of intermittent bilateral earache, diminution in hearing, weakness and feverishness. Ten days before he had had a bilateral myringotomy for Acute Purulent Otitis Media.

The family and past histories are irrelevant.

The admission temperature was normal, but it promptly rose to 102. The patient appeared tired and toxic.

Physical examination was negative, except for bilateral purulent middle ear discharge and questionable tenderness at the left mastoid tip.

During the first 10 days of hospitalization, December 26 to January 5, the white cell count ranged from 20,500 to 12,000 and the haemoglobin from 92 per cent to 86 per cent. Lung pathology was excluded by X-ray, and a left upper devitalized molar tooth was extracted. Above this was a purulent maxillary sinus which had been treated by inferior meatal puncture and irrigation.

His deafness was marked, hearing ranging from 1 to 6 ft. for the conversational voice. There were no physical signs of mastoid disease. The cultures of the middle ear discharge showed staphylococcus aureus. Mastoid X-rays were indicative of mastoid involvement.

Tests for typhoid and undulant fever were negative. Medical treatment was symptomatic and supportive including the ultra violet rays, viosterol and insulin.

On January 8 the temperature had reached 105 on five successive days.

The patient was drowsy and listless. Influenced by an extension of the pathology in a second X-ray series, a simple mastoid operation was performed on the left side, with exposure of the lateral sinus. Blood cultures had been reported negative on January 6th and 8th. The tympanic membranes were mildly inflammatory in appearance. The myringotomy wounds were widely open. The white cell count had dropped 50 per cent, haemoglobin was 82 per cent.

At operation there was no bone destruction. The

antrum and one large cell half way down behind the posterior canal wall were filled with a greenish fluid. While working in this area there was an occasional swirl of white material, presumably pus, which would swim around in a puddle of blood. Following this further, posteriorly and inferiorly, it was found to have come from a large cell behind, below, and partially internal to the posterior wall of the lateral sinus.

Cultures from this mastoid pus yielded staphylococcus aureus, and haemolytic streptococcus.

Because of the presence of the haemolytic streptococcus, Sulfanilamide was added to the medication. This was on January 8, 1937 before the comparative value of the mouth and intramuscular preparations of this drug had been evaluated. An intramuscular preparation was chosen. Pink tinged skin and mercurochrome-like stained urine was noted.

On January 8 the temperature reached 106.5 and the haemoglobin was 78 per cent, the lowest of the illness.

On January 10 there was some rigidity of the neck, but no other meningeal signs. On January 11, a third blood culture was reported negative. A direct blood transfusion of 600 cc. was given. On January 13 many pustules appeared on the neck and back. Repeated cultures from the pus in these pustules exhibited staphylococcus aureus.

The patient's condition remained unchanged, temperature ranging from 102.5 to 105.5. After a second transfusion, a simple mastoid operation was performed on the right side, January 14, with exposure of the lateral sinus and dura, and liberal re-exposure of the lateral sinus and exposure of the dura on the left side, further exposing the dura of the middle fossa.

The anatomical findings in the right mastoid were about the same as on the left, including the large cell somewhat internal to the lateral sinus posteriorly. It was not involved, in fact, only an occasional cell showed infection, but with the same white exudate or pus.

Cultures from this mastoid wound showed no growth.

A lumbar puncture done just before operation showed

Fluid cloudy

Cell count 2,544

Polymorphs 90% — Small Lymphocytes 10%

Globulin 4 plus

Spinal fluid sugar 20 mg. per 100 cc.

No growth on culture.

A tap done January 15, the day after the operation showed

Fluid cloudy

Cell count 874

Polymorphs 96% — Small Lymphocytes 4%

\*Read before Section of Otolaryngology, New York Academy of Medicine, Wednesday evening, February 16, 1938.

Globulin 3 plus

Spinal fluid sugar 29.5 mg. per 100 cc.

Culture showed growth of gram positive cocci — after 3 days subcultures and incubation, haemolytic streptococcus.

Sulfanilamide had been administered continuously intra-muscularly since the identification of a haemolytic streptococcus in the culture taken from the first mastoid wound. January 19th this method of administration was discontinued and the drug given orally until the end of the illness.

For the 6 days after the second operation the patient was in a state of mental confusion, incontinent, with stiffness of the neck, hyperactive deep reflexes, absent superficial reflexes, and a Babinski on the right, which over these 6 days became more and more definite. On the 6th day after the second operation the patient developed a second crop of pustules over the neck. He was transfused again. Once more the staphylococcus aureus was cultured out. On this day, January 21, the highest temperature recorded was 102, and from then, gradually, by lysis, the temperature reached normal.

The patient's mental and meningeal status gradually improved so that within 2 weeks postoperative (2nd operation) he was thoroughly orientated with the neck flaccid and reflexes practically normal.

Noticeable throughout the illness was the absence of much severe pain in any location, and although chilly at times, he did not experience a pronounced chill.

The operative wounds healed without event, the left in 23 days and the drum in 15 days; the right in 17 and the drum in 23 days.

The patient was discharged from the hospital, recovered on February 5, 1937.

The total amount of intramuscular Sulfanilamide given was 400 cc. and of the mouth preparation 690 grains.\* At intervals the patient had been sufficiently cyanotic to reduce the dosage of the drug but at no time was it withdrawn altogether.

There was a 22% (35 lbs.) loss of body weight during this illness all of which was regained on April 2.

Hearing gradually improved. Bone conduction and the hearing were normal on May 2.

\*Administered under the guidance of Dr. H. LeBaron Peters, Attending Physician, Bridgeport Hospital.

## SUMMARY AND CONCLUSIONS

1. A case of otitic streptococcus meningitis with septic manifestations with recovery, treated by the usual conventional methods plus the use of liberal persistent doses of Sulfanilamide, is added to those already recorded.

2. The pathological behavior of the middle ear or the absence of it, was unusual but consistent with the findings at mastoid operation.

3. It may be assumed that the haemolytic streptococcus when identified in the spinal fluid was of low virulence and was inactivated by the use of Sulfanilamide.

4. The use of Sulfanilamide in otitic infection of streptococcus origin should be accepted. It is important to ascertain if this drug should be used early during the period of an uncomplicated suppurative otitis or reserved for use in event of the development of more serious complications for which treatment at our disposal is not satisfactorily effective.

144 Golden Hill Street

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## HEALTH INSURANCE

"From the time the health insurance bug bites the politician, he becomes incapable of viewing it or anything pertaining to it clearly. He closes his mind to international morbidity and mortality rates, which clearly demonstrates the superiority of independent practice. He refuses to face the staggering administrative expense, the red tape, the bureaucratic muddling which make it impossible for obligatory insurance systems to deliver high grade medical service at low cost.

"We need realism, as Mr. Lehman says — in government, in social leadership, and in medicine — and the proposal of compulsory sickness insurance for this country is anything but realistic. It fails to take care of the large number of indigent and unemployed who are our greatest problem. It does not even provide for all workers in the low-income class. It raises the cost of living and lowers the standards of medical care — a combination doubly dangerous to health."—*Edit., N. Y. State Jour. Med., Feb., 1938.*

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## TRICHOMONAS VAGINALIS INFESTATIONS IN THE MALE

Melvin of Miami, Florida, reports that trichomonas vaginalis infestations occur with sufficient frequency in the male to warrant its being looked for as a routine in every case of so-called nonspecific urethritis, and in every case in which the mate is known to be infected with the organism regardless of the absence of symptoms. The prostate harbors the offender. Fresh unstained specimens should be examined. The sex partner must be treated at the same time to gain the most satisfactory results.—*Jour. Fla. Med. Assn., Jan. 1938.*



# The Treatment of Cranial Trauma<sup>\*</sup>

FRANCIS C. GRANT, M.D., Philadelphia, Pa.

Increased speed of transportation has increased the number of cranial injuries but there has been no essential change in the methods of treatment in the past five years. The primary aims of therapy are still (1) to prevent meningitis and (2) to relieve increased intracranial pressure, if present. The most important single treatment is still rest in bed. However, when serious cases are seen in shock, the usual first aid, such as elevation of the foot of the bed, external heat and intravenous glucose and blood are, of course, indicated. Lacerations must be examined for possible underlying fracture and for the escape of cerebrospinal fluid. If there is only a simple fracture or none at all, the wound can be debrided and sutured, with a drain left in the dependent portion. When a depressed, compounded fracture is found, only the obviously contaminated pieces of bone are removed before suturing if the dura is found to be intact. On the other hand, when the dura has been penetrated, more complete removal of the fractured bone is necessary. Depressed simple fractures must be elevated if they lie over a functionally important area in order to prevent future irritation.

Fractures accompanied by the escape of cerebrospinal fluid from the ear have a good prognosis if treated properly. Syringing of the ear is contraindicated since the direction of flow must not be reversed. The external canal can be flooded with 5% mercurochrome, a few wisps of cotton inserted and a bandage applied. The patient is asked to lie on that side.

The escape of cerebrospinal fluid from the nose suggests a very poor prognosis and these cases present a very difficult neurosurgical problem.

The diagnosis of extradural hemorrhage is difficult but important because of the necessity of surgical intervention. In these cases, the injury is followed by a lucid interval which is succeeded by the onset of focal and progressive symptoms. The general neurological picture must be recorded at the first examination in order to establish a base-line for future changes.

If focal and progressive symptoms are later noted, or if no improvement occurs after five days, exploration of the suspected area is necessary to ascertain the presence of a clot.

Lumbar punctures, including manometric readings, should be done to determine the presence of contusion or laceration of the brain. If the fluid is bloody, the tap should be repeated at intervals, taking the pressure down one-half of its difference from normal each time.

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The Council on Medical Education and Hospitals of the American Medical Association has issued its annual lists of hospitals approved for training interns, hospitals approved for residencies in specialties, and approved schools for clinical laboratory technicians. In the list of hospitals approved for training interns Connecticut has eighteen. For residencies in specialties we are not so fortunate. New Haven Hospital is approved for residencies in medicine, obstetrics-gynecology, orthopedics, otolaryngology, pathology, pediatrics, radiology, surgery and urology. Grace Hospital, New Haven, is approved in medicine and surgery; the Municipal Hospitals, Hartford, in communicable diseases; the Neuro-Psychiatric Institute of the Hartford Retreat in neuropsychiatry; Norwich State Tuberculosis Sanatorium in thoracic surgery and tuberculosis; and Undercliff at Meriden in tuberculosis. Connecticut has no approved school for clinical laboratory technicians.

Acknowledgment is made of the annual reports of the Prenatal Clinics and of the Obstetrical Departments of St. Vincent's Hospital, Bridgeport, Connecticut.

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THE NORWICH INN

invites you for a week end.

See Page 8

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<sup>\*</sup>Abstract of paper presented at 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21, 1937.

# Annual Congress on Medical Education and Licensure

CHARLES J. BARTLETT, M.D.

President, Connecticut State Medical Examining Board

The 34th Annual Congress was held at the Palmer House in Chicago on February 14 and 15, 1938, with a good attendance from all parts of the country. The features of the meeting which were of particular interest to your reporter are outlined below.

The outstanding factor of the first session was the emphasis upon the need of a much more careful evaluation of medical students from the viewpoint of personality than is now made; character; aptitude; and fitness in general for such professional work, with the object of eliminating the undesirables. This was stressed by Dr. Ray Lyman Wilbur, Chairman of the Council on Medical Education and Hospitals, in his report as well as in the papers following this. The difficulty of determining these factors satisfactorily was emphasized by the speakers but they were unanimous as to the necessity of making every attempt to do this. Dr. Wilbur also emphasized the need of cultural studies for those who are to become medical students. He recommends that at least two or three years should be devoted to these topics. In his report he also stated that the recent survey of medical schools showed that about twenty of these are still weak.

John Kirkland Clark, President of the New York Board of Law Examiners, spoke on Professional Licensure. He again emphasized the great need of determining the character of those who are to go into professions but recognized that it is most difficult to determine the personality and character of the candidates. He felt that medical schools and hospitals have a better chance to determine this than is the case in law schools. Students who do not measure up to the requirements in these respects should be removed from the professional schools before graduation. He spoke of a Pennsylvania law school where a special attempt has been made to have the faculty make a more accurate appraisal of the individual students. For this purpose the students are assigned in small numbers to members of the faculty, and these representatives of

the faculty are supposed to meet frequently with the students assigned to them, both to appraise their ability as students and also to learn as well as possible the personality and character of each.

In a paper on "The Function of the Special Examining Boards," by Dr. Willard C. Rappleye, Dean, Columbia University College of Physicians and Surgeons, he not only emphasized the needs of such special examining boards in order to have a definite method of determining who is properly fitted for a specialty, but he recognized that with all the modern developments of special examining boards, etc., there was bound to be overlapping, and he believed this could best be met by the organization of a National Council of Medical Education and Licensure to act as a clearing house. On such a National Council there should be representation from all the organizations that would be involved. It was not evident what the relationship of such a National Council would be to organized medicine.

In a paper on "Introduction to Clinical Medicine and Some Variations in the Curriculum," Dr. Burrell O. Raulston felt that in American medical schools in general there should be clinical demonstrations to medical students in their first and second years, and that after medical students have completed a course in physical diagnosis they should go into hospital wards as clinical clerks. He felt that at present the clinical work is taken up too late in the medical course.

There was an interesting discussion of the type of internship which should be required before a medical graduate is accepted by the state for licensure. This had been brought to the front by a letter received by Dr. Winford Smith, Director, Johns Hopkins Hospital, which stated that graduates of that hospital were not eligible for license in a certain state which required by statute a rotating medical service, whereas his hospital gives a non-rotating service. In his paper Dr. Smith emphasized the value to a young physician of a straight service as contrasted with



a rotating service as given in many of the smaller hospitals. There was an animated discussion regarding this and the consensus of opinion was that no definite type of internship should be specified; that some hospitals could well give a very satisfactory straight service while other hospitals that cannot do this might give a satisfactory rotating service. It was also felt that a single year of internship was not sufficiently long and that two years was much more desirable.

The problem of graduates of foreign medical schools, whether citizens of this country or not, is a serious one for all State Examining Boards and this topic was one of those discussed. The chief advance that had been made in this respect was reported by William C. MacTavish, Adviser to Premedical Students in New York University. By an agreement made with the Royal Italian Consul in New York, any American student who wishes to study medicine in any of the Italian medical schools is referred to a committee to investigate his educational qualifications and his ability to profit by work in an Italian school. This includes his knowledge of Italian. As a result of this a large percentage of those desiring to study medicine in Italian medical schools are prevented from doing so because of their inability to satisfy the requirements of this committee. In the discussion it was felt that American students desiring to enter any of the European medical schools should be passed upon by a similar committee before they are allowed to go abroad with the expectation of obtaining a license in this country. It was felt in general that the training which these men secure abroad was not the equivalent of that given in this country and that it would be desirable that graduates from European schools should spend some time in an American school before being accepted for license.

As this problem of graduates of foreign medical schools is an aggravating one for the Connecticut State Examining Board, we had hoped that some method might be provided by which foreign medical schools could be surveyed and classified as have American medical schools. Accordingly your reporter welcomed the opportunity to discuss this problem with a physician who has had much experience in making surveys of medical schools in this country. He expressed himself as feeling very definitely that the large expense which would be required to do this and the com-

paratively short time that the results could be relied upon after a survey had been made did not justify any such attempt. The problem of graduates of foreign medical schools apparently will be with us for some time to come.

The importance of the discussions at this Congress were such that it seems desirable that a representative from Connecticut should be present at each of the annual meetings.

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### MORE ARRIVALS IN THE FIELD New Licensees to Practice Medicine and Surgery

Bethel — Dexter Wolfson

Bridgeport — Hyman D. Brier

Louis L. Buzaid

George Y. Smith

R. Edward Vioni

James P. Ward

Bristol — Graham C. Newbury

Danbury — George A. Burnie

Hamden — James E. Mazzacane

Hartford — R. Starr Lampson

New Britain — John J. Freeman

Gershon B. Silver

Charles N. Sullivan

New Haven — Courtney C. Bishop

Max L. Berlowe

Caspar G. Burn

Lena Halpern

Mary L. James

Harry Resnik

Joseph F. Sadusk, Jr.

Lawrence M. Tierney

Ethel Walker

New London — Louis DeAngelis

Southington — Francis W. Trapp

Stamford — Joseph F. Grady

Thompsonville — Howard W. Gourlie

Westport — Charles A. Lubrecht

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The Florida Medical Association in a resolution adopted by the Executive Committee of the Association has expressed itself as opposed to "the control, direction, or employment of doctors of medicine by any lay individual, group, association, or corporation, whereby the services of such doctors are to be sold or dispensed by the said individuals or agencies". It does approve, however, health and accident policies with cash benefits sold by legally qualified insurance companies.—*Jour. Fla. Med. Assn.*, Jan., 1938.

# Presidents' Proscenium

## Doctors Will Work

J. F. GSELL, M.D.

President, Kansas Medical Society

It is often stated, both among the profession and the lay public, that doctors are a group to get together, make speeches and pass resolutions, then do nothing about it till the next meeting. My experience has been just the opposite. During the past year I have been amazed at the number of capable men who will give freely of their own time and money if something worth while is to be accomplished.

This thought perhaps can be illustrated best by a description of the organization and workings of our state society. There are about twenty-one hundred licensed physicians in the state, fifteen hundred of which are members of the State Society. We have over seventy active county societies. The state is divided into twelve councilor districts with an elected councilor over each district. The Society employs a full time secretary and two assistants, with offices in the state capital, which set-up greatly facilitates the work of the president. The detailed work is carried on through seventeen committees.

At the close of the annual meeting in May the previously elected president-elect assumes office. Soon thereafter the chairmen of the committees are selected, with great care. Four to six men are appointed in addition to each committee. Last year we initiated the policy that no state officer be asked to serve on a committee, nor should any man serve on more than one committee. In this way about one hundred men have some special job to do. After the committee roster was complete each man was notified of his appointment and asked to indicate by letter whether or not he would be willing to assume the job. The response was almost one hundred per cent favorable.

Organization plans were carried further. In

September the committee chairmen were called into an all-day Sunday conference at which time the suggested year's agenda for each committee was presented and freely discussed. This was done not only to acquaint each chairman with the "musts" which the president desired of his committee, but also to have an understanding of the problems and projects of the entire society. This meeting served to stimulate enthusiasm among these members, so much so that some time has been spent in tactfully dampening the fires of over enthusiastic committees.

The Economics Committee especially has been efficient in helping the members of the county medical societies and the county commissioners to set up plans for the care of the indigent. Two plans are used, either a lump sum paid to the medical society, or a partial fee payment plan with various modifications to meet local conditions. Under such arrangements the indigent of our state largely have their own choice of physicians and are receiving reasonable care.

It was thought that the members might profit by a first hand presentation and discussion of the business, economic and political problems confronting organized medicine, both within the state and nationally. Since the county society meetings are taken up by scientific and clinical business it was decided to hold Sunday afternoon meetings in each councilor district. Several of these meetings have been held. They have been well attended and profitable. At each meeting the district councilor presides, and problems are presented by committee members, state officers and the executive secretary, after which a general discussion ensues.

On January 30 the mid-year meeting of the council of the society was held in Wichita. Though the weather was nasty every councilor



was present when business commenced at 10 A.M. This speaks well for the enthusiasm and industry of these men for you must remember that Kansas is four hundred miles long and two hundred miles wide so that several had to travel long distances to be on hand.

The above, in brief, is a summary of the organization and business activities of the Kansas Medical Society for the past year. The idea was held at the beginning of the year that there were many men in the state who would work hard in the interests of the society if given a specific job to do. The belief has been substantiated by their energy and industry and shows that if given the opportunity "Doctors Will Work."



### COOPERATIVE MEDICINE

"The future of American medicine lies in sensible group practice. Medical services on hospital wards constitute a type of group practice for the poor.

"Volunteer prepayment plan for medical services is the best for the group with incomes from \$1100. to \$3500.

"The hospital insurance systems of this country are grossly over-priced. The essential base rate of \$2.00 per month per capita will render excellent adequate medical care — everything except contagious diseases, chronic pulmonary tuberculosis, insanity with hospital care, re-fills on prescriptions, glasses, artificial limbs, etc. It allows approximately 10% for reserve and 10 to 15% for administrative expenses.

"Under these plans physicians' salaries range from \$3600. to \$15,000 or \$16,000.

"Cooperative medical service includes a definite preventive medical program."

*J. Kingsley Roberts, M.D., before the Hartford County Medical Association, February 9, 1938.*



### THE HUNT PLAN

Dr. Ernest L. Hunt of Worcester, Massachusetts, presented "The Hunt Plan" at a joint meeting of the Hartford County Medical Association and the Hartford Medical Society sponsored by the Medical Information Bureau on March 9. This plan is one for improving and extending the present system of medical service and provides: " (1) that each district society be urged to form within its area, health or medical

service councils composed of carefully chosen representatives of its own membership, of the Welfare Agencies, Hospital Boards, health and Welfare departments, and nursing and dental societies; (2) that a State Health and Medical Service Council of similar constitution be developed whose functions shall be to coordinate the work of the local Councils, advise as to methods, study legal relations and devise statutes when necessary to simplify procedures and increase efficiency in carrying out the primary purpose of promoting better health by bringing adequate medical care to the people and relieving economic distresses which are detrimental thereto."



### COMING MEETINGS

American Therapeutic Society, New York, April 1-2.

American Association for Thoracic Surgery, Atlanta, Ga., April 4-6.

American College of Physicians, New York, April 4-8.

American Association of Anatomists, Pittsburgh, Pa., April 14-16.

American Association on Mental Deficiency, Richmond, Va., April 20-23.

International Congress of Obstetrics and Gynecology, Amsterdam, Holland, May 4-8.

Medical Society of the State of New York, New York City, May 9-12.

Medical Society of New Jersey, Atlantic City, May 17-19.

Connecticut State Medical Society, Hotel Griswold, Groton, June 1-2.

Rhode Island Medical Society, Providence, June 1-2.

American Medical Association, San Francisco, June 13-17.

American Physicians' Art Association, First National Exhibition, San Francisco Museum of Art, San Francisco, June, 1938.

American Association of Industrial Physicians and Surgeons, Chicago, Ill., June 6-9.

Maine Medical Association, Malvern Hotel, Bar Harbor, June 26-28.

Tenth International Medical Congress for Psychotherapy, Balliol College, Oxford, England, July 29-August 2.

Southeastern Dermatological Association, Charlotte, N. C., September, 1938.

American College of Surgeons, New York City, October 17-21.

American Public Health Association, Kansas City, Mo., October 25-28.

American Urological Association, Southeastern Branch, Louisville, Ky., December 2-3.

# Association of Connecticut Tumor Clinics

## Cancer of The Larynx<sup>\*</sup>

EDWARD J. WHALEN, M.D., Hartford, Conn.

Cancer of the larynx is a dreadful disease, dreaded by the patient because he has a vivid picture in his mind of some victim he has heard about who slowly strangled to death from a cancer growing in his throat, feared by the physician because cancer spells doom to many of his patients so afflicted.

About 4% of all malignant tumors found in the body involve the larynx. 98% of these are of the squamous cell variety.

Cancer of the larynx is divided, anatomically and clinically, into two groups: intrinsic and extrinsic. A cancer of the larynx is considered intrinsic when it involves the vocal cords, the ventricular bands or any part of the interior wall of the larynx. When the growth has extended up over the brim of the larynx involving the aryepiglottic folds, the posterior commissure or the base of the epiglottis, the process is regarded as extrinsic. The classification into intrinsic and extrinsic, though based on location, is fundamentally explained by the lymphatic distribution. All of the lymph channels in the interior of the larynx empty into two nodes placed on either side of the larynx and no efferent vessels leading out of these nodes have ever been demonstrated. For this reason intrinsic cancer is for a long time a strictly local process and as such yields a higher percentage of cures than is obtained in visceral cancer in other parts of the body.

Metastases are late or not observed with intrinsic cancer. Cures are obtained in over 80% of cases in this group. Metastases are early and widespread in cancer that is extrinsic. This type is curable in about 25% of the cases. The grouping of cases is of supreme importance both as to treatment and prognosis.

The cause of cancer is not known. In 40% of

cases of cancer of the larynx there is found a history of abuse or excessive use of the voice. In 12% there is a history of excessive smoking.

The sex incidence is interesting in that there are ten cases among males to one in females. It has been found in all ages from 16 to 90. Most of the cases are in the cancer age, from 50 years and on.

The early symptoms of cancer of the larynx are chronic hoarseness or local discomfort in the throat. In a series of 300 cases one or the other of these two symptoms was present in every case. Chronic hoarseness is often the first symptom. This should be sufficient reason for the patient to consult his physician. Every patient between the ages of 18 and 80 who has a hoarseness lasting for more than two weeks may have a cancer and it is the task of the physician to exclude this possibility. If this is done, cancer of the larynx will be recognized in its beginning and surgery will cure the great majority of patients. It is unfortunate that only 20% of patients report early enough to qualify for the relatively simple operation of laryngofissure, an operation with a record of over 80% cures.

It is difficult to understand why these patients do not report at an earlier date. No painful, distressing or embarrassing examination is required. The chief reason seems to be that the patient takes it for granted that his hoarseness is due to laryngitis and that it will clear up and so he does not consult his physician. This neglect is contributed to largely by the fact that the patient has had, like all of us, many previous attacks that were really laryngitis and got well spontaneously.

Our patients must be taught that hoarseness lasting longer than two weeks may be due to cancer and that a physician should be consulted.

<sup>\*</sup>Read at the Eighth Meeting of the Association held at St. Francis Hospital, Hartford, February 24, 1938.



Part of the control of the spread of tuberculosis was due to the education of the people who were taught to look with suspicion at anyone who coughed. If the person with a hoarse voice was made the same object of suspicion, he might be driven to his doctor and so become one of the early, curable cases of cancer.

There are other causes for chronic hoarseness in addition to cancer of the larynx. A variety of benign growths occur on the vocal cord and produce the same sort of hoarseness as that caused by cancer. Tuberculosis and syphilis are recognized as causing a laryngitis and a roughness of the voice. A study of the individual case will permit its correct classification with very few errors.

**Diagnosis.** Cancer of the larynx appears as a definite local lesion and when far advanced, has a characteristic appearance. It usually appears as a bulging of one of the vocal cords. The surface of the cord is first attacked and the process spreads by continuity to adjacent structures. The first step in diagnosis is a carefully recorded history followed by an examination with the laryngeal mirror. A routine physical examination will include an X-ray study of the neck and chest. A serological examination should never be overlooked. With some patients, a satisfactory view can not be obtained by use of the laryngeal mirror. In these cases, every portion of the larynx can be viewed by use of the laryngeal speculum.

The last step in diagnosis is the removal of tissue that is under suspicion, for histological examination. The question of biopsy has been a debated one for years but there is now universal agreement that a properly performed biopsy will not injure the structure of the larynx, will not cause a rapid dissemination of the cancerous lesion and will not produce malignant changes in a non-cancerous lesion. A pathological report can be obtained in 48 hours and if cancer tissue is found, treatment can be instituted at once.

A review of the records of patients with cancer of the larynx at the Bronchoscopic Clinic, Jefferson Hospital, as reported by Dr. Louis H. Clerf, discloses that 136 patients were admitted for examination and treatment during the 6-year period from July 1, 1930, to July 1, 1936. Of these, 43 cases were found suitable for operation by thyrofissure and 38 required complete removal of the larynx. In the remaining 55 cases

constituting 40 per cent of the total, the growth had advanced to the point where surgical treatment even of a radical nature was not justifiable. In these cases tracheotomy was performed for relief of dyspnea, and in a few gastrostomy was necessary to prevent starvation. Irradiation therapy was practiced in a number, but every case was hopeless.

An analysis of these cases to ascertain the causes for delay in making a correct diagnosis would be interesting. Why were 55 cases recognized as carcinoma only after the condition became inoperable? Why was the diagnosis of carcinoma in 38 delayed until laryngectomy became necessary? The causes can be considered under 2 broad groups. First, there was delay on the part of the patient to consult a physician until dyspnea, referred pain, or other manifestations of advanced disease had developed; and, second, there was a failure on the part of the physician to examine the larynx or to suspect the presence of cancer when the patient first consulted him. A third cause might be considered, namely, that some physicians do not believe cancer of the larynx is a curable disease.

**Treatment.** The treatment of cancer of the larynx should be the surgical removal of the cancer. In determining the type of operation to be employed in a given case, the points of importance are the location of the growth and its extent as determined by examination with the mirror, supplemented in some cases by examination with the aid of the speculum. It must be remembered that the extent of the lesion is always greater than is apparent by indirect methods of examination. The histological grading of the tumor cells is something for the pathologist to worry about but the surgeon will remember that at one end of the grouping is the basal cell carcinoma of low grade malignancy, while at the other end is the anaplastic type of cell of high degree of malignancy.

**Laryngofissure:** This operation affords operative access to the interior of the larynx by splitting the thyroid cartilage. It is indicated for intrinsic cancer of limited extent and any degree of malignancy. This operation was first performed at the Billroth Clinic in Vienna in 1870. Between this date and 1885, 8 cases were operated on and six were dead in one year from recurrences. Morell Mackenzie at this time felt that the results of the operation were most unsatis-

factory. During this period, Butlin and Semon wrote that this was not the manner in which to attack the disease. These two men and their student, St. Clair Thomson, finally devised the operation that is essentially the one in use today.

**Laryngectomy:** This operation, which includes the complete removal of the larynx, is indicated in cases of intrinsic cancer that have extended so far posteriorly that the operation of laryngofissure would be inadequate and in cancer of the extrinsic variety. This operation was first performed by Billroth after successful dog operations. His first 25 patients were all dead at the end of the first year following their operation. As a result of the improvement in technique at the hands of Tapia in Spain, Gluck in France and MacKenty in this country, the procedure now shows an operative mortality of less than 2% and five year cures in about 25% of the cases.

General anesthesia is unnecessary for the operation of laryngofissure, though sometimes a basal anesthesia with avertin is helpful. Local anesthesia with novocaine for the preliminary work until the cartilage and the external pericondrium are exposed. Then an incision is made in the cricothyroid membrane and an application of 10% cocaine to the interior of the larynx. During the operation, blood is prevented from entering the trachea by frequent use of the aspirator. After the operation is finished the cough reflex returns and blood or clots are voluntarily expelled. For this reason, no opium derivative should be given after the operation. The steps of the operation are, in their order, local anesthesia in midline of neck, division of the soft tissues down to the thyroid cartilage, incision of the cricothyroid membrane, local application of cocaine to the interior of the larynx, cutting through the thyroid cartilage without going through the inner pericondrium, subperichondrial dissection backward to elevate the affected cord, excision of the growth including a wide area of normal tissue, closure of the soft tissues, closure of the skin.

A feeding tube is not required. Nothing is taken by mouth for a period of six hours so as to allow the effect of the local anesthetic in the interior of the larynx to disappear. The patient is out of bed on the day following the operation. Healing takes place by primary union. Granulations may form at the site of the removal and

it may be necessary to remove these should they interfere with breathing.

For the operation of laryngectomy, a basal form of anesthesia is required. Avertin is the most satisfactory with the addition of local infiltration of novocaine. Topical application of cocaine to the interior of the larynx is usually required. The steps in the operation in their order are: skin incision from the chin to the sternum; skeletonization of the larynx; opening of the pharynx by incision of the thyrohyoid membrane; separation of the pharynx and cervical esophagus from the larynx; bringing the larynx forward and out of the wound as it is separated; closure of the pharynx and upper end of the esophagus; insertion of feeding tube to stomach; closure of overlying tissues over the pharynx and esophagus; exposure of trachea; amputating the larynx by division of the trachea; suturing of trachea to skin. The after care of the patient includes constant nursing care and preparation for immediate aspiration of bronchial secretions. The feeding tube is retained for ten days. A person who has had his larynx removed is without a voice. He will develop some sort of a voice, sometimes an excellent one, by swallowing air and using this air to produce a pharyngeal voice that often defies detection. He will drown if he goes swimming as he has a tracheal fistula at the sternal notch.

In recent years there has been a great improvement in the treatment of malignant disease of the larynx by radium and X-ray. In the early days the most deplorable results from this treatment were observed. Recurrences were the rule. Perichondritis that completely obliterated the larynx, destruction of tissues and erosion of the large vessels in the neck with fatal hemorrhage were common and expected. All of this has been changed by the perfect control with which the radiologist of today applies his therapy.

Extrinsic cancer of the larynx is curable by operation in about 25% to 30% of cases. In these extrinsic cases the use of radium and roentgen-ray therapy will yield results that compare favorably with these figures.

The first case is that of a clergyman, age 68 years. He was seen in January, 1935. He complained of pain in his throat and left ear. He had been hoarse for three months. His past history was not interesting. Examination of the larynx by means of the mirror showed a tumor on the left vocal cord at the site of the vocal process. The surface of the tumor, which was about the size of a small green pea,



was unbroken. There were no palpable cervical glands. A section removed from the mass on the left cord was reported to show a squamous cell carcinoma, grade 2.

February, 1935, a laryngofissure was done under avertin anesthesia, the left cord being removed from the arytenoid cartilage to the anterior commissure. Because the pathologist observed that the removed cord showed some cell activity well out toward the margin of the specimen, though not up to it, this patient received a post-operative course of deep X-ray therapy, receiving in all 2900 mil. hours. No granulation tissue formed at the site of the operation and the patient has remained in good health. His larynx shows no return of the growth 3 years following his operation.

The second case is that of a store manager, age 46 years. He was first seen in November, 1935. He complained of a constant hoarseness that had been present for three months. He had not used his voice in an unusual or excessive manner. He had smoked a package of cigarettes a day for many years.

The past history was of no interest. Examination of the larynx by means of the laryngeal mirror revealed a small fungating mass on the surface of the left vocal cord in its middle third. The remaining parts of the larynx were normal. No lymphatic nodes could be palpated in the cervical region. A section removed from the mass on left vocal cord for histological examination was reported to show a squamous cell carcinoma, grade 2. November 25, 1935, the operation of laryngofissure was done under avertin anesthesia with the aid of novocaine. The left cord was resected from the arytenoid cartilage to the anterior commissure, final section being done with the diatherm knife. The patient returned about December 25, 1935, for removal of granulation tissue which interfered with his breathing. He has remained well, gained 25 pounds and now at the end of over 2 years has shown no return of the new growth.

A third patient, a man age 54, was seen in August, 1933. He complained of hoarseness for the previous three months. Found to have a papilloma-like mass on left cord involving the anterior commissure. Section showed a squamous cell carcinoma, grade 2. Operation of laryngofissure August, 1933. Uneventful convalescence. One year later a diagnosis of pulmonary actinomycosis was made. Died January, 1935. Post-mortem examination showed no return of the laryngeal growth, 18 months after the removal of the carcinoma.

#### DISCUSSION

DR. D. J. ROBERTS, (Hartford): Dr. Whalen's presentation of this subject has been very fair. Naturally he stressed the surgical side as the one with which he is more familiar. His results in the presented cases have been truly excellent. My comments are on irradiation and while seemingly controversial are intended to be supplementary.

In the successful total laryngectomy there is loss of voice. In thyrotomy or laryngofissure, the voice is substantially impaired. The case which is ideal for surgery is usually ideal for irradiation as well, and if successful, leaves a much better end result. Many apparent hopeless cases may be salvaged by thyrotomy, cautery removal of involved bulky tumor and affected cartilage, and radon

seed implantation. This tends to give a similar end result to total laryngectomy with permanent tracheotomy. Prolonged Roentgen therapy must not be utilized after a previous irradiation, for necrosis is bound to ensue.

Initial response to irradiation means more clinically than the suggestion of radio-resistance indicated by the histological slide. The biopsy specimen is necessarily small and may not be representative of the whole tumor. Technic has changed materially in the last ten years. Coutard has been chiefly responsible for the results that compare very favorably with the best surgical statistics; even in the operable type of case. For some superficial cases: 7500 r. delivered in two months through two ports varying with a third anterior port when the growth is forward. Ideal procedure according to Quick: 200 K.V., 80 cm. distance 4x5 cm. port. Thoraeus filter equiv. 2.32 mm. cu. low delivery rate 6.75 r. per min. 3 fields — treat daily each field — five days in week. Begin 50 r. — 75 r. first week; later 100 r. 2nd week. At the end of 58 days 4000 r. to each field — total dose of 12,000 r. Each of the factors in this schedule seem to aid in the giving of a large dose of radiation. By thus doing, the patient can tolerate the dose better than if given faster and it is only by giving these large doses in a safe manner that good end results may be obtained.

Five year laryngeal irradiation statistics today are based on a technic usually obsolete at time of publication and in such small numbers as to be misleading. Quick says in his Janeway lecture before the International Congress of Radiology in 1937: "It is my opinion that the present status of radiation therapy renders total laryngectomy obsolete. The more conservative operation of thyrotomy for access, and at times for drainage, is extremely valuable, in conjunction with irradiation. The early cancer is as favorable for radiation as for surgical extirpation. The ultimate result is better. The real problem is the more advanced case in which surgery never has been interested."

I believe that poorly administered irradiation is a worse procedure than inexperienced surgery, for the latter has a chance for a cure, while the former gives no more than a false impression of improvement. Of course the ideal lies in either close cooperation between experienced representatives of the Surgical and Radiological departments or the combination of these qualities in one individual.



#### CONNECTICUT FRACTURE COMMITTEE A. C. S.

There will be a meeting of the Connecticut Fracture Committee, A. C. S., at the Hunt Memorial Building, April 21. Business meeting 10:00 to 12:00, luncheon \$1.25, Hartford Club, clinical meeting in the afternoon from 2:00 to 4:00.

The business meeting is an important one and we hope that members will make every effort to attend.

R. M. Yergason, M.D.,  
Secretary

# State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

## The Medical Certification of Death

WILLIAM C. WELLING, Director

Bureau of Vital Statistics

State law requires that a certificate of death shall state the disease of which a person died . . . "or the cause of death, defined so that such death may be classified under the international list of causes of death" . . . The law continues: "A certificate of death which shall not define the disease or other cause of death as herein provided shall not be deemed a sufficient basis upon which to issue a burial or removal permit, and such certificate shall be returned to the physician who made it for the proper correction and definition, unless it shall be specifically stated therein that the cause of death is not obtainable".

The international list of causes of death now contains two hundred official ways to die under a proper classification. The fourth decennial revision of this list was made in Paris in 1929. The fifth revision will be made this year and published in 1939.

Perhaps the best way to discuss the international list is to point out certain "causes" of death which are not acceptable. The word "acceptable" means acceptable under the rules prescribed by the Federal Bureau of the Census.

There are three ways in which a death certificate can be classified as due to nephritis. The first: Acute nephritis (including unspecified under 10 years of age). Second: Chronic nephritis. Third: Nephritis, unspecified (10 years and over). This means that if a death certificate is written as due to "Nephritis", it is not correct. It may be any one of three if the person is over 10 years of age. The correct way would be to state specifically whether or not the nephritis was acute, chronic or unspecified.

There are two ways of classifying deaths due to burns. They are: Conflagration and Accidental Burns (Conflagration excepted). A child may be playing with matches, set the building

on fire and die in the resulting conflagration. This would be classified as conflagration because it might endanger others in the building. However, if a child was playing with matches, and clothing caused the burns, the death would be due to accidental burns, conflagration excepted.

The death certificate which gives the cause of death as neoplasm or new growth is not acceptable. There should be the statement "non-malignant" after each. If the growth is malignant, the classification is cancer. Quoting from the international list: "The word 'tumor' is frequently used indefinitely and may mean a malignant tumor or cancer; inquiry should always be made on this point and a definite statement of malignancy or non-malignancy obtained if possible". This means that if a physician signs a death as due to neoplasm, he will receive a letter asking whether the tumor was malignant or non-malignant. The Federal Bureau of the Census makes this letter mandatory upon the bureau of vital statistics of Connecticut.

Sometime ago a death certificate was received in the bureau of vital statistics with the following cause of death: "Peritonitis following abdominal section." The international list does contain the item: "Peritonitis, cause not specified." However, it is again mandatory under rules from the Bureau of the Census that a query must be sent from the bureau of vital statistics to determine whether or not the peritonitis was puerperal, whenever the death concerned a female between the ages of 15 and 45, approximately. The death certificate referred to above did relate to a female, and the abdominal section had been made to deliver a pregnant uterus, full term.

Frequently death certificates contain multiple causes of death, both principal and contributory. One must be selected for classification of the



record. Here again there are Federal standards, and the Bureau of the Census has prepared a Manual of Joint Causes of Death.

It must be borne in mind that mortality statistics are the more valuable as they reflect, in a measure, the morbidity. Thus, in being confronted with multiple causes of death on a certificate, the first question should be: Is there one disease in the group which would be preferred to reflect the morbidity of that disease? As an example, typhoid fever is the preferred cause over many others. That is, it is considered more important to have the typhoid mortality reflect the typhoid morbidity. Again, measles is given the preference over any type of pneumonia; and the same may be said for scarlet fever, whooping cough and diphtheria. For this reason, whenever a death certificate is received for a child under 15 years of age, in which the death is given as any pneumonia, a letter is sent to the physician to ascertain whether or not the pneumonia is a sequel to another disease, from which the child may have recently recovered.

In its ultimate analysis, a death certificate is a questionnaire. Apart from its legal importance, the health officer wishes to get as true a picture as possible of the general health of the state. This is knowledge which the health officer should give to the citizens. It will point out new problems or diseases which should be attacked. The query from the bureau of vital statistics is no idle request. In fact, the bureau of vital statistics has no other alternative than to write — the Bureau of the Census in Washington demands it.

The state department of health has available for any physician who wishes a copy, a convenient vest pocket physicians' reference book to the International List of Causes of Death. This list gives the code numbers for the two hundred official causes of death, contains many hints as to the making out of the certificates of death so that letters from the bureau of vital statistics will be unnecessary. There is an extensive list of undesirable terms which are occasionally used in certificates of death. Any physician desiring a copy of this valuable book may secure the same by writing to the state department of health.

## INDUSTRIAL PHYSICIANS ANNOUNCEMENT

Of special interest to every physician and surgeon of this country is the program of the American Association of Industrial Physicians and Surgeons 1938 meeting.

To broaden the interest in industrial medicine to the end of minimizing the morbidity and mortality of working people; reducing accidents and the number of deaths or cripples resulting therefrom; removing the hazards of occupational diseases, and keeping more people on the jobs in healthy condition — all these are naturally of vital interest to the physician or surgeon in general practice, for they mean more wage earners to assume and take care of more medical care for their respective families.

Acquaintance with industrial medical problems such as those is increasingly important to every physician and surgeon whether he be exclusively in private practice or identified, in whatever relation, with industrial practice. Thus, he will do well to mark on his calendar June 6, 7, 8, 9, 1938, for this meeting of the American Association of Industrial Physicians and Surgeons, which will be held concurrently with the Midwest Conference on Occupational Diseases at the Palmer House in Chicago. The field of industrial medical practice is increasingly prolific of broader opportunities and closer cooperation with physicians and surgeons in every specialty and in every locality.

Scientific and technical exhibits will be a feature of this important and instructive convention, and any reference to exhibits should be addressed to A. G. Park, Convention Manager, 540 North Michigan Avenue, Chicago.

### Outline of Tentative Program

#### First Day — Subject: Endemic Goiter, Cretinism, and Myxedema

Etiology	Iodine
Pathology	Prophylaxis
Types	Thyroiditis
Geographic Distribution	Malignant Goiter

#### Second Day — Subject: The Thyroid in relation to Metabolism, Nutrition and Endocrine Glands. Physiological and Pathological Interrelationship and Clinical Application

Oxidation	Parathyroid
Sugar Metabolism	Pituitary
Water Balance	Adrenals

#### Third Day — Subject: Hyperthyroidism

Basal Metabolism	Types: Diffuse Toxic Goiter
Iodine	Nodular Toxic Goiter
Complications	
Recurrences	Treatment: Nonsurgical
Goiter Heart	Surgical

The subdivisions under the subjects above are for illustrative purposes only and are not to be considered as all inclusive or exclusive.

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# The JOURNAL of The Connecticut State Medical Society

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## • Editorials •

### BONE TUBERCULOSIS

Tuberculosis of the bone is no longer a common disease. This observation is now being made by the general practitioner who now seldom sees a case, by the orthopedic surgeons who report few cases today as compared with twenty years ago, and is confirmed by a study of the mortality statistics. As a cause of death in Connecticut, it ranks below typhoid fever, now considered so rare that many students graduate from medical school and finish an internship without having seen a single case. During 1936 there were only 13 deaths from bone tuberculosis, a rate of 0.7 per 100,000. While the death rate is not an exact indication of the incidence of this disease and while we realize that there are a great many cases of bone tuberculosis to every death from the disease, it is encouraging to see such a low rate. For every death from bone tuberculosis approximately forty patients died from pulmonary tuberculosis during 1936. This represented a new low of 36.2 for the latter disease, the notorious "Captain of the Men of Death". It no longer heads the mortality statistics but is seventh on the list. With the decrease in pulmonary tuberculosis there has been an even greater decrease of bone tuberculosis, which is due in part, at least, to the elimination of tuberculosis in our dairy herds and to the pasteurization of milk.

When bone tuberculosis was more common, the older surgeon's frequent contacts with it enabled him to recognize the familiar white swellings. The limp, the boggy induration, the absence of effusion, the absence of redness, the peculiar limitation of motion in the joint, all told him almost as much as is learned today with the refinements of modern diagnostic methods. He took into consideration the tuberculous contact, the constitutional habitus, the history of onset, the chronicity of its course.

Today with the beautiful roentgenograms we are often misled by lack of definite bone destruction into overlooking a case of joint tuberculosis. Unfortunately, the definite picture which the

**MANUSCRIPTS.**— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

**ILLUSTRATIONS** — Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

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**REPRINTS.**— Reprints of papers and obituaries may be obtained from the Editor at cost.



X-ray presents in pulmonary tuberculosis is not so clear cut in bone tuberculosis. And, hence, with its uncommon occurrence it represents a real diagnostic problem to be referred to those who have an opportunity of seeing the largest number of cases. Pain and limp, or limp alone, or an awkward gait in a child deserves a careful examination by someone familiar with bone tuberculosis.

If moreover, there be delay in diagnosis, there is always an obligation on the physician in charge of the patient to take precautions that deformities do not occur. Those who feel that they are doing their duties in putting pillows under painful swollen knees in order to relieve discomfort and thereby produce a flexion, which is very difficult to reduce, may find that the courts disagree.

After the diagnosis has been established, consideration must be given to treatment. All measures that have proven their value in pulmonary tuberculosis are equally indicated in bone tuberculosis. And let us not forget here that bone tuberculosis is always secondary to tuberculosis in some other part of the body and that constitutional as well as local treatment is necessary.

Rest, fresh air, and good food are the fundamentals — rest of the joint by immobilization and rest in bed during the acute stage. To obtain this the available sanatorium facilities should receive serious consideration. Ever since Albee more than twenty-five years ago proposed fusing joints and offering this treatment as a panacea for joint tuberculosis, surgery has been advocated with the claims becoming less and less extravagant. No longer is it suggested as a measure to replace the three proven remedies or to shorten the time of treatment, but to insure a cure. Whether it does this or not, at least there is almost universal agreement that surgery should be used only in carefully selected cases with a full recognition of its limitations.

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#### DR. JAMES A. SPAULDING, NESTOR OF THE MEDICAL PROFESSION OF MAINE

Not only Portland, the city of his labors for over sixty-four years, and Maine, his adopted state, but all New England has suffered a real loss in the death of James Alfred Spaulding at the rich age of ninety-one. His was a unique character, exhibiting itself in early childhood even when at the age of two years and ten days he started kindergarten with an older brother because he was a good talker and able to answer questions for both. Dr. Spaulding had the misfortune to lose his hearing at an early age but this only served to interest him in diseases of the eye and ear and make him strive the harder to attain the proficiency that was his. A medical student under Dr. Oliver Wendell Holmes, Dr. Spaulding in later years expressed his gratitude to his famous teacher in "My Guardian Angel," published in the Maine Medical Journal.

The list of Dr. Spaulding's accomplishments is a long one. A linguist, a pianist, an outstanding

ophthalmologist, a president of his State Medical Society, an editor of the Society's Journal, and, not to be overlooked, a billiard player of no mean skill, are but some of the things for which he will be remembered. Dartmouth College bestowed upon him, one of her own sons, the honorary degree of Doctor of Letters in 1928 and at the time of his death he was Dartmouth's fourth oldest living alumnus.

We join the Maine Medical Society in paying tribute to a beloved leader "whose perennial youth startles and delights us".

—☆☆—

## From the Secretary's Office

**CREIGHTON BARKER, M.D.**

**258 Church Street      New Haven**

### Delegates from the Massachusetts Medical Society

Notification has been received from the Secretary of The Massachusetts Medical Society that Dr. Clarence E. Burt of New Bedford and Dr. Theodore L. Story of Southbridge will be the Official Delegates from Massachusetts to our Annual Meeting in June 1938. Dr. Burt and Dr. Story are well known to members of The Connecticut State Medical Society through their regular attendance at the Clinical Congress each year; Dr. Burt has served on the Program Committee of the Congress for some time and it will be a pleasure to welcome them both at the Groton meeting.

### Council Meeting

The February meeting of the Council was held in Hartford, the guests of Dr. Jarvis and Dr. Miller. There were present Drs. Campbell, Gildersleeve, Gold, Hanchett, Jarvis, LaMoure, Leak, Miller, Paine, Turkington and Barker.

### Committee on Revision of the By-Laws

The Committee on the Revision of the By-Laws of which the President-Elect, Dr. H. B. Campbell, the Secretary, the Treasurer, Dr. B. M. Parmalee and Dr. W. B. Walker are members has commenced its study of the By-Laws of the Society with a view to revising and bringing them up to date. It is not contemplated that many changes will be made at the meeting of the House of Delegates this year. The By-Laws in their present form were published in the February issue of the Journal and this Committee will

welcome suggestions from any member as to changes that appear to be desirable. There is a typographical error in Section 5 of Chapter 5 on page 106 regarding the duties of the Secretary. The third from the last sentence should read, "He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and election and committees of their appointment and duties. He shall employ such assistance as shall be ordered by the House of Delegates."

### Study of Provisions of Medical Care

The Council voted at its February meeting to leave the decision in regard to making studies of provisions for medical care, as suggested by the Trustees of the American Medical Association, to the County Associations. Pamphlets containing an outline of suggestions for the study have been sent to all County Secretaries and any County wishing to undertake the project will receive full cooperation from this office.

### Assistance to the Blind

The Council has for sometime been advising with Mr. E. H. Reeves, Director of the Bureau of Old Age Assistance, in setting up the medical provisions of the Bureau's program for assistance to the blind. Final details of the project have recently been completed, Dr. E. M. Blake of New Haven has been appointed Supervising Ophthalmologist and examining ophthalmologists in various communities throughout the State have been designated.

### Wisconsin Study of State Medicine

The Medical Society of the State of Wisconsin is engaged upon a study of the distribution of medical care financed by a special assessment of ten dollars per member. As a part of the program, Mr. George Crownhart, Executive Secretary of the Society, has been sent to Europe to study the working of systems of state medicine. Mr. Crownhart is especially qualified to make this survey and his comments will be richly informative.

### American Physicians Art Association

The American Physicians Art Association will hold its first national exhibit in San Francisco in June during the Annual Convention of the American Medical Association. Oils, water colors, sculpture, photography, pastels, etchings, pen and ink drawings, wood carvings and book bindings will be exhibited. Scientific medical art will not be included.



# Our Neighbors

## MAINE

Dr. Virginia C. Hamilton, practicing in South Harpswell, presents an interesting analysis of her records of 500 patients treated in that community in the *Journal of the A. M. A.* for February 26, 1938. As Dr. Hamilton states, her situation is peculiarly suited to give a true cross section of rural practice. The people of that district are a hardy stock, all who died being over seventy with the exception of two. Twenty-two cases of pregnancy were attended and in this small group there were four toxemias including one eclamptic. Three women were delivered at the hospital, thirteen at home, the remainder being either abortions or undelivered at the time the analysis was made. Dr. Hamilton had no acute rheumatic fever, no peptic ulcer and no lobar pneumonia. South Harpswell is indeed a healthy spot on the rugged Maine coast.

The Commonwealth Fund of New York is making available fellowships in medicine, pediatrics, obstetrics and office surgery to members of the Maine Medical Association, to be given at the Harvard Medical School. These fellowships are for one month and carry a stipend of \$250 plus tuition and an allowance of \$25 for traveling expenses.

## MASSACHUSETTS

The New England Journal of Medicine (Boston) is offering a prize subscription for one year to the undergraduate contributing the best original article to the Tufts College School of Medicine Medical Journal during the current year.

## NEW YORK

The Division of Syphilis Control, New York State Department of Health, announces the appointment of Dr. James H. Lade as medical consultant. Dr. Lade is a graduate of the University of Syracuse Medical School in 1934 and served internships in the Syracuse General Hospital and in Fordham Hospital, New York City. He was granted a fellowship at Johns Hopkins Hospital where he served for one year

as assistant dispensary physician in the syphilis department under Drs. J. E. Moore and T. B. Turner.

Plans for low-cost group hospitalization for 1,000,000 persons now unable to pay for medical service are now being formed, according to Dr. S. S. Goldwater, Commissioner of Hospitals, New York.

The Westchester County Medical Society has arranged to cooperate with a number of civic organizations in that county which have expressed a desire to conduct educational campaigns for voluntary periodic physical examination of adult servants and others who are in constant contact with children. The Society's part in this program is limited to the medical aspects of it, namely, to making available standard examinations through its own members.

St. Agnes Hospital, White Plains, opened its new \$150,000 wing on January 15. The new addition is completely fireproof and is composed of private and semi-private rooms and sun parlor on each of the four floors, semi-private ward on the second floor, clinic in the basement, physicians' meeting room on the first floor, supervising rooms, etc. The patients' bedrooms are of the most modern construction.

The Board of Managers of the Presbyterian Hospital in New York City has announced the opening of the Mary Harkness Home on King Street, Port Chester, as a convalescent hospital.

A group has been incorporated under the chairmanship of Louis I. Dublin, Ph.D., vice-president of the Metropolitan Life Insurance Company, to establish an American Museum of Health. It is believed that the health and medical exhibits at the New York World's Fair 1939 may be used as a nucleus. In this group are Dr. George Baehr, representing the New York Academy of Medicine, and Dr. John L. Rice, formerly Health Officer of New Haven and now Health Commissioner of New York City.

The New York City Department of Hospitals, in its twenty-six institutions, utilizes the services of approximately ten per cent of all interns in the United States.

Dr. Bela Schick, discoverer of the "Schick Test" for determining susceptibility to diphtheria, was presented with the gold medal of the New York Academy of Medicine on March 3. To quote the New York Herald Tribune in an editorial of March 4, "It probably is not too

much to say that his discovery was of more importance in combating diphtheria than all the combined efforts of medical science before that date". Dr. Schick has been rightly termed "One of the real giants of medicine".

## - NEWS -

### *from County Associations*

#### Fairfield

The regular monthly meeting of the Bridgeport Medical Association was held at the University Club on Tuesday evening, March 1st, 1938, at 8:30 P.M. The meeting was well attended, both by local men as well as out-of-town guests. Dr. Moses Behrend, Attending Surgeon to the Philadelphia General Hospital, presented a most interesting discussion on "The Medical Treatment vs. Surgical Treatment of the Tuberculous." Lantern slides and moving pictures illustrated the points brought out in his discussion with marked clarity. Prior to the Scientific Meeting, a dinner was tendered Dr. Behrend by a group of his physician friends in Bridgeport.

#### Hartford

Ernest R. Pendleton, M.D., has been appointed health officer of the Town of Granby replacing Mr. W. N. Clark, resigned.

Walter Keefe, M.D., of Hartford was elected president of the Holy Cross Club of that city at its annual meeting in February.

William C. McCarty, M.D., professor of pathology at the Mayo Foundation, Rochester, Minnesota, was the guest speaker at the meeting of the Connecticut Association of Tumor Clinics held at St. Francis Hospital, Hartford, on February 24. The attendance was about 100. Papers and clinical cases were presented by Drs. Whalen, Buckley, and Resnisky, all members of the staff of St. Francis Hospital.

Thomas S. O'Connell, M.D., 71, for forty-five years a general practitioner of East Hartford, died on February 25 at St. Francis Hospital. Dr. O'Connell represented his town at the last session of the General Assembly.

According to an opinion handed down re-

cently by Deputy Attorney General Dennis P. O'Connor every town, city and borough in Connecticut must have a health officer who is a licensed practitioner of medicine. According to the law the health officer does not have to be a resident of the town or city where he officiates.

Dr. Lloyd W. Wilcox of Old Lyme has opened an office in Terryville.

Dr. and Mrs. A. S. Brackett of Bristol have recently returned from a trip around the world.

Dr. Raoul Siliciano has been elected President of the Bristol Medical Society.

Births — Son, Gerald Francis Uricchio, February 7, 1938. Dr. and Mrs. Joseph G. Uricchio (Kathryn McGorty, R.N., St. Francis Hospital).

Son, Perry Tyler Hough, Jr., February 25, 1938. Dr. and Mrs. Perry T. Hough (Althea Goodale, Hartford).

Son, Frederick Speirs Ellison, Jr., March 7, 1938. Dr. and Mrs. Frederick S. Ellison (Dorothy Campbell, New Haven).

Application is about to be made for a charter under the laws of the State of Connecticut for a non-profit sharing organization of the Manchester Medical Association. This Association was organized in 1911.

#### Litchfield

H. R. Hansell, M.D., has been health officer of Sharon during the absence of Jerome S. Chaffee, M.D.

Edward Loomis Pratt, M.D., 79, a leading physician in Winsted for fifty-three years, died at the Hartford Hospital on March 4. Dr. Pratt was one of the founders of the Litchfield County Hospital and had served as a director of the hospital since its establishment.

#### New Haven

New Haven Hospital is to have a new superintendent to fill the vacancy created by the resignation recently of Dr. Albert W. Buck. On September 1, James A. Hamilton, Dartmouth, 1922, will assume his new duties at the hospital. Mr. Hamilton received his master's degree in 1923 from the Amos Tuck School of Business Administration of Dartmouth and was Assistant Professor of Industrial Management at that college from 1923 to 1926. For ten years he was superintendent of the Mary Hitchcock Memorial Hospital, Hanover, N. H., and is now superin-



tendent of the Cleveland City Hospital and lecturer at Western Reserve University.

Eugene N. Cozzolino, M.D., has been appointed health officer of West Haven to fill the vacancy caused by the death of Charles E. Kaufman, M.D.

The Yale Medical Society met on Wednesday, March 9, 1938, at 8:30 P.M., in the Sterling Hall of Medicine. Four papers were presented by members of the faculty of the Yale University School of Medicine.

Dr. Alexander W. Winkler and Dr. Paul K. Smith presented a paper on "The Distribution in the Body Fluids of Potassium Salts Injected Intravenously."

The second paper of the evening was on "The Termination of Pregnancy in Dogs by Gonadotropic Anti-hormone" by Dr. Kenneth W. Thompson.

Dr. Marion Howard presented the third paper entitled "The Isolation and Identification of a Strain of the Virus of Choriomeningitis".

The fourth paper reported on "Some Observations on pH and Action Potentials of the Cerebral Cortex", by Dr. J. G. Dusser de Barenne, Dr. W. S. McCullosh, and Dr. L. F. Nims.

On March 2, 1938, the New Haven Medical Association heard a paper by Dr. Herman O. Mosenenthal of New York City, on "Diabetes: Diet, and Protamine Zinc Insulin".

Prior to the meeting a dinner for Dr. Mosenenthal was held at the Medical Society Rooms.

The fifth Harry Burr Ferris Lecture was given in the Sterling Hall of Medicine by Professor Samuel Randall Detwiler, Professor of Anatomy, Columbia University, College of Physicians and Surgeons, on the evening of March 2, 1938. The subject was "Vertebrate Visuo Receptors."

From a viewpoint of twenty years' interest in comparative anatomy of the retinae of many species of animals, Dr. Detwiler described the variations in retinae and the species variations in pigment migration, the relation of Vitamin A to visual purple and the correlation or lack of correlation of the fovea with acuity of vision and other points concerned with reception of visual images by the retina. The paper is scheduled for publication in the Yale Journal of Biology and Medicine.

Dr. Gustave Lindskog, Associate Professor of Surgery at the Yale Medical School, discussed

"Empyema" at the weekly clinical conference at the Meriden Hospital, February 16, 1938.

Drs. Jerome A. L'Heureux and David J. Cohen have been appointed to the staff of school physicians in Meriden.

Dr. John Stoddard has been appointed Health Officer of Meriden to replace Dr. M. J. Sullivan.

### New London

The Advisability of Socialized Medicine was the subject of the discussion at the New London Community forum held in that city on February 25. Dr. John P. Peters, professor of medicine at Yale University School of Medicine, and Dr. Creighton Barker, clinical professor of otolaryngology in the same school, presented the two opposing sides of the question before a gathering of 150 people, about one-half of whom were physicians. Dr. Daniel Sullivan presided. Many prominent people in the affairs of the State entered into the discussion.

Dr. Louis Sears of Norwich, Connecticut, returned March 1 from three weeks' vacation at Miami Beach and Jacksonville, Florida. The doctor reports a particularly enjoyable experience fishing and swimming.

The William W. Backus Hospital had its first Crippled Children's Clinic, February 9, and eleven children presented themselves for examination and advice.

The Tri-City meeting was held at Uncas-on-Thames, March 3, at 8:15 P.M. Drs. Campbell and Urquhart gave papers on the medical and surgical aspects of tuberculosis. They showed many X-ray plates to illustrate their points. Mr. J. Kieffer presented a motion picture which described in detail the laminagraph which he has developed. It was quite evident that this symposium was enjoyed as Dr. Campbell was requested to make available at definite intervals more such opportunities for the study of tuberculosis.



### ITS QUICK ACTION PREVENTS DEFORMITIES

No antiricketic substance will completely straighten bones that have become grossly misshapen as the result of rickets. But Oleum Percomorphum can be depended upon to prevent ricketic deformities if given early and in adequate dosage. This is not true of all antiricketic agents, many of which are so limited by tolerance or bulk that they cannot be given in quantities sufficient to arrest the ricketic process promptly, with the result that the bones are not sufficiently calcified to bear weight or muscle-pull and hence become deformed.

## • OBITUARIES •

### WILLIAM DENISON MORGAN, M.D.

1850 - 1936

Dr. William Denison Morgan for more than fifty-six years was a member of the Hartford County Medical Association — from 1880 until his death on December 17, 1936.

Dr. Morgan was born in Hartford on November 20, 1850, was a graduate of Trinity College in 1872, and of the College of Physicians and Surgeons, Columbia University in 1876. Following his graduation from medical school he interned at the New Haven Hospital, after which he studied for a year in Germany. Returning to Hartford in 1878 he engaged in the practice of his profession and soon established himself among the leaders in medical circles in the city and in the state.

In 1896 he became a member of the medical department of the Phoenix Mutual Life Insurance Company; shortly afterwards was appointed Assistant Medical Director, and in 1906 he became Medical Director and held the title until his death.

Since his retirement from active practice nearly thirty years ago he had rarely attended the meetings of this association but always had a keen interest in whatever was new in scientific discovery.

The following tribute is reprinted from an editorial in the Hartford Courant:

"Dr. William Denison Morgan, 'Uncle Billy' to his many friends, lived most of his eighty-six years in Hartford. He could trace his ancestry to the early beginnings of the Connecticut colony, but pride of descent was no part of his cosmopolitan makeup, however much he may have valued it. During the years of his active practice he contributed liberally of his time and abounding energy to various institutions within the sphere of his profession. To him the Hartford Hospital, in particular, owes a deep debt of gratitude. Members of its board of trustees could come and go, but he remained on; for nearly thirty years he was chairman of the execu-

tive committee, and on his retirement he carried the title of honorary chairman.

"His interest in the orphan asylum and in the State Hospital for the Insane at Middletown far surpassed his professional obligations to them. Kind and charitable, he fitted well Voltaire's definition of a physician as an estimable man, 'who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which will benefit it, exercises his art with caution, and pays equal attention to the rich and the poor'.

"A familiar figure at the Hartford Club, where in his later years he lived, his jovial nature found abundant expression. No matter what turn the conversation might take, the topic seemed always familiar to him. His love of the classics had given him a rich background. He had read about everything worth reading, and he followed current events, especially in the field of politics and economics, with a full understanding of their significance. His was a keen and penetrating mind, tempered with an appreciation of humor that made his company eagerly sought. Age did not dim his eye or diminish his enjoyment of life. If ever a man possessed the art of growing old gracefully and belying his years, it was Dr. Morgan, and many there will be to mourn him."

Robert L. Rowley, M.D.

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### CHARLES D. ALTON, M.D.

1845 - 1937

It is with the deepest regret that I bring to your attention the death on January 8 of Dr. Charles D. Alton, Medical Referee of the Connecticut Mutual Life Insurance Company of Hartford, and a member of this Association.

Dr. Alton was born in Kenosha, Wisconsin, May 9, 1845, a son of Conde Raguet Alton and Carolan Esther (Turner) Alton. He secured his preliminary education at Phillips Exeter Academy, graduating in 1866. His medical training was attained at Bellevue Hospital Medical College, from which institution he graduated in 1875.

During his long residence in Hartford, he was active not only professionally, but also had a lively interest in civic affairs. He was instrumental in the formation of the Open Hearth Mission,



and served as its President for several years. Dr. Alton was also President of the Hartford County Medical Association in 1912, and served as President of the Hartford Medical Society in 1913. For ten years he served that body as Treasurer. He was also Vice President of the American Climatological Association. Dr. Alton was a member of the Twentieth Century Club, and a former President; a member of Trinity Church, the Connecticut Historical Society and the Drama Society of Hartford.

He leaves two children, Mary Brace Horne and Carolan Hayward.

Those of us who have had the privilege of knowing Dr. Alton all feel a deep and personal loss in his passing from our midst.

Henry B. Rollins, M.D.

—☆—

### **JAMES J. McLINDEN, M.D.**

1875 - 1937

Dr. James J. McLinden, age 61 years, 858 North Main Street, Waterbury, Connecticut, was born on December 1, 1875, the son of John and Alice Elizabeth (Quinn) McLinden, both of whom were born in County Armagh, Ireland.

He was a graduate of the Waterbury High School, Loyola College, and the University of Pennsylvania Medical School, class '98, and while there was President of the Cardinal Newman Catholic Club. He also attended the Johns Hopkins Graduate School.

Prior to entering medical school he joined his brothers, Frank and Hugh McLinden and founded the drug company of McLinden Brothers at 816 North Main Street, Waterbury, Conn., and also worked as a druggist at the old G. L. Dexter drug store in Waterbury, Conn. Upon leaving medical school he became private physician to a retired English clergyman at Newport, R. I., and remained there for eight months, returning to commence his practice in Waterbury, Conn.

On May 7, 1902 he was married to Mary Alice Lott of Port Jervis, New York. She died on August 15, 1928.

Surviving are two children, son, Attorney John F. McLinden, of Waterbury, Conn., and a daughter, Alice Marie McLinden, assistant librarian at the Silas Bronson Library, Waterbury, Conn., and a brother Hugh P. McLinden of Hartford, Conn.

Dr. James J. McLinden was widely known and active in medical circles being a member of the American, Connecticut, New Haven County, and Waterbury Medical Associations and served as President of the latter association in 1923 when it acquired its present spacious medical club known as the Castle Memorial.

He was a member of the Staff of St. Mary's Hospital and the Waterbury Hospital, Waterbury, Conn., serving as President of the St. Mary's staff in 1930 and performed the first major operation at this hospital, being a charter member of this institution.

He was a member of St. Thomas's Church, Waterbury Lodge of Elks, and the Foresters of America.

A merry twinkle in his eye, a sprightly gait, and youthful bubbling enthusiasm were always his, with a vast sense of humor that stood him in good stead through the long years of medical practice, and always a friendly cheery greeting no matter what the occasion might be.

Those who knew him, lived with him, worked shoulder to shoulder with him, gloried in his friendship, are the richer for years of association. His spirit remained youthful to the end. He was a most likeable type of person. His principles were the sound ones. His faults must have been few, for he walked everywhere among friends.

Dr. James J. McLinden died at St. Mary's Hospital, Waterbury, Conn., on March 16, 1937, of pneumonia.

John F. McLinden

—☆—

### **NOTICE**

The Journal will publish each year a list of publications by Members of our Society. In order to make this list complete Members are requested to send a copy of each reprint or an abstract of each original article to Dr. Herbert Thoms, New Haven Hospital, New Haven, Conn.

—☆—

### **CORRECTION**

On page 134, March issue of the Journal, "Socialized Medicine in the Soviet Union", the public health budget should read 7,528,146,000 rubles without the dollar sign.

## • Abstract •

*On the Importance of Premature Birth for the Origin of Certain Cerebral Affections, with Special Reference to the more severe and lighter degrees of Exogenously Conditioned Mental Inferiority. By T. Brander, of the Pediatric Clinic of Helsingfors. (In Acta Psychiatrica et Neurologica, v. 12, No. 3, 1937. Pp. 313-331).*

The importance of premature birth in the etiology of certain cerebral affections has been insufficiently stressed, especially in the neuropsychiatric field. Since progress in obstetrics and pediatrics assures a decrease in primary and later mortality among the prematurely born, the question presents a practical as well as a theoretical interest. The author estimates that 10% of all births are premature, that half of these attain school age, and that of this half, 10% evidence certain degrees of mental inferiority. This means that  $\frac{1}{2}\%$  of all school children are intellectually subnormal as a result of circumstances directly or indirectly associated with premature birth. Taking 4% as a conservative estimate of mental deficiency among school children in general, one may attribute 12.5% of all such deficiency to the partus praematurus. However, if imbeciles, idiots, oligophrenics, etc., from the ages of 7-15 years, are included, the rate of mental inferiority due to premature birth can be placed between 12.5 — 25%. In addition, systematic intelligence tests have revealed a lesser incidence of high intelligence quotient among premature than among other children.

The cause of abnormalities in mental development should be sought in the influence of 3 factors: low birth weight, certain birth complications, and hereditary psychic tainting. The author's material shows that a lower birth weight usually entails a lower I.Q., although it is less injurious than birth complications. The most unfavorable of the latter appear to be face and pelvic presentation, rapid course of birth, and termination of delivery through high or medium high forceps. Psychic hereditary tainting, however, tends to exercise a more important particularly outstanding. Cases without complications and without tainting showed the most favorable mental development, and the combination of birth complications and tainting, the most unfavorable. The susceptibility of premature children to functional disturbances of the central nervous system may be traced to the following factors: intracranial hemorrhage, lues, unripe conditions of the central nervous system, rachitis and capillary anomalies. The effect of birth trauma on intelligence and other cerebral functions depends not only on birth weight and on the localization and extent of the injury, but also on heredity. For example, a slight birth trauma in an infant with somewhat inferior mental endowment may result in a very severe intelligence defect. More emphasis should be placed on the slight degrees of mental inferiority which may develop from a slight intracranial birth injury. Since Schwartz has discovered by autopsy signs of intracranial lesions in over 90% of premature infants, it must

be conceded that birth prophylaxis for the prevention of "exogenous" forms of mental deficiency deserves more attention.

M.K.B. (N. P. Inst. of Hart. Retreat)



## • Quarto Notes •

### METHODS OF TREATMENT

by Logan Clendening, M.D.

Clinical Professor of Medicine

Medical Department of the University of Kansas

879 Pages

St. Louis

C. V. Mosby Co.

1937

Furnishing, as it does, an outline of the latest methods of treatment in medicine, this book is particularly useful for students and general clinicians. The rationale and technic of each method of procedure is clearly and minutely described. Moreover, the division of the text into two parts, one concerning general therapeutics and methods of use in treatment, the other special therapeutics with application of therapeutics to particular diseases, avoids needless repetition.

The chapter on "Drugs", covering 185 pages, describes in great detail methods of administration, dosages, therapeutic effects, as well as the use of specific drugs in conditions like syphilis, malaria, amoebiasis, etc. A consideration of the effects of drugs as related to the various systems represents a practical text of materia medica and pharmacology. Unfortunately, unlike Beckman's "Treatment of Medicine" which offers numerous practical prescriptions, in many instances with results achieved by outstanding clinicians, this book has listed few prescriptions. Because of this the former text may appeal more to the young practitioner whose art and ability in prescription writing is inclined to be meager.

The underlying facts and principles of dietetics are so condensed and dogmatically outlined as to be of inestimable value. Examples of every known diet used are given, as well as a lengthy discussion of infant feeding.

The chapters concerning hydrotherapy, exercise, electrotherapy, radiotherapy, climate and psychotherapy provide valuable information not usually found in other texts.

The chapters concerning special therapeutics are arranged and discussed according to body systems, and a brief outline is given for each disease, thus serving a ready and useful reference.

Clearly and simply written, this volume is concise enough for the student and complete enough for the general practitioner and specialist. Every practitioner should have access to it.

A. P. Tortolani





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April 20 — Who Chooses Your Doctor? The characteristics of a reputable physician as distinguished from cults, quacks, fakers, faddists or exploiters.

#### **Mothers and Children**

April 27 — Healthier Babies. Daily routine of the healthy baby; medical supervision; feeding.

May 4 — Healthier Mothers. General advice for the expectant mother; good for boys and girls to know about.

May 11 — Hospitals Aid Health. The place of the hospital in the health program of the individual and the community.

May 18 — Runabouts, 1938 Model. The preschool child and the health and personality problems of that age.

#### **Using Health Knowledge**

May 25 — The Health Check-Up. Periodic health examination and what follows, and why.

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Striking features of the committee's reorganization proposals include; Provision of more adequate hospital services in all parts of the country; overhaul of the general medical services under National Health Insurance at a cost of 720,000£ a year; new schemes for a more comprehensive maternity service to reduce the high maternal mortality rate; and instruction for mothers in the art of cooking to prevent malnutrition.

Among the other suggestions advanced are improved housing, control of milk supplies, and fuller instruction in feeding and general hygiene. —*Penn. Med. Jour.*, August, 1937.

## *Happy New Year*

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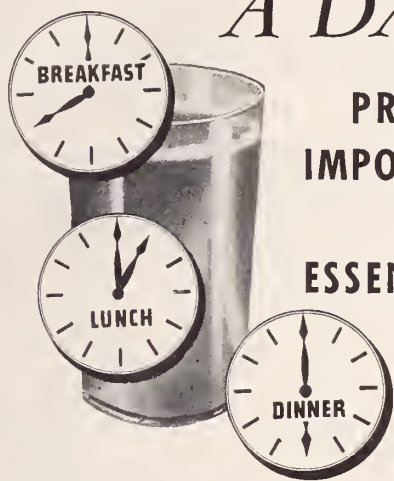
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The American Association for the Study of Goiter, pursuant to its accepted invitation and to correspondence with the Honorary Presidents and Attending Members of the First and Second International Goiter Conferences, announces that the Third International Goiter Conference is to convene in the city of Washington, District of Columbia, U. S. A., September 12 to 14, 1938.

The subjects proposed for discussion are as indicated in the outlined tentative program enclosed.

Physicians and others in the United States and in other countries desirous of participating in the Program are requested to submit titles at their earliest convenience. Since the time which it is possible to allocate on the program is obviously limited, it will be necessary for the Program Committee to exercise its best judgment in the selection of speakers and to insist without exception that the speakers conform to the time allocated.

Manuscripts of addresses, papers and discussions delivered or read at the meetings are to be published in extenso in the form of transactions.

The official language of the Conference shall be English. Interpreters will be furnished for papers read in other languages.

For further information concerning the Conference, communicate with the officers of The American Association for the Study of Goiter or the Chairman of the Program Committee.



## PARKE, DAVIS & COMPANY ELECTS NEW PRESIDENT AND NEW FINANCE CHAIRMAN

Dr. A. William Lescohier was elected President of Parke, Davis & Company, and Norman H. F. McLeod, Chairman of the Finance Committee, at a meeting of the Company's Board of Directors held in Detroit on March 1. Both men have been actively connected with the Company for about thirty years. Dr. Lescohier has been General Manager and a Director since 1929, and Mr. McLeod a member of the Board since 1921, and Secretary and Treasurer since 1923.

Dr. Lescohier succeeds Oscar W. Smith, who had been President of the Company for sixteen years until his death on February 7 of this year. Dr. Lescohier was born in Detroit, a few blocks from the laboratories of which he now becomes the chief executive. After graduating from high school he worked a year or two in the laboratories and then entered Detroit College of Medicine. In 1909, following his graduation from college, he became a member of the Parke-Davis Research Staff, giving special attention to biological problems. In 1918 he was named Assistant Director of the Research and Biological Laboratories, in which capacity he was in charge of the production of serums, vaccines, antitoxins, and other biological products. In 1925 he was made Director of the Department of Experimental Medicine, and in 1928 he was appointed to the position of Assistant-to-President. In 1929 he was elected General Manager, which position he has occupied since that time.

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<sup>1</sup> Sollmann, T., Cole, H. N., Henderson, K., et al.: *Amer. J. Syph. Gon. & Ven. Dis.* 21:480 (Sept.), 1937.

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\**Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241-245  
*Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154  
*N. Y. State Jour. Med.*, June 1935, Vol. 35, No. 11  
*Arch. Otolaryngology*, Mar. 1936, Vol. 23, No. 3  
*Laryngoscope*, Jan. 1937, Vol. XLVII, No. 1, 58-60

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STATE MEDICAL SOCIETY

Hotel Griswold, Groton, June 1st and 2nd, 1938

VOLUME  
TWO

• MAY, 1938 •

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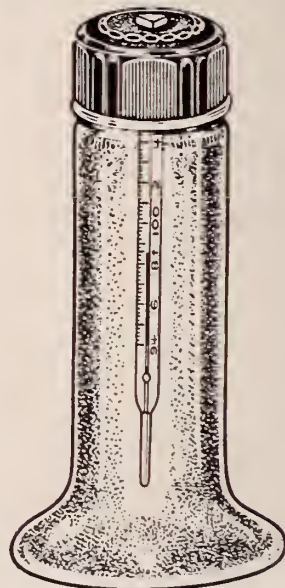
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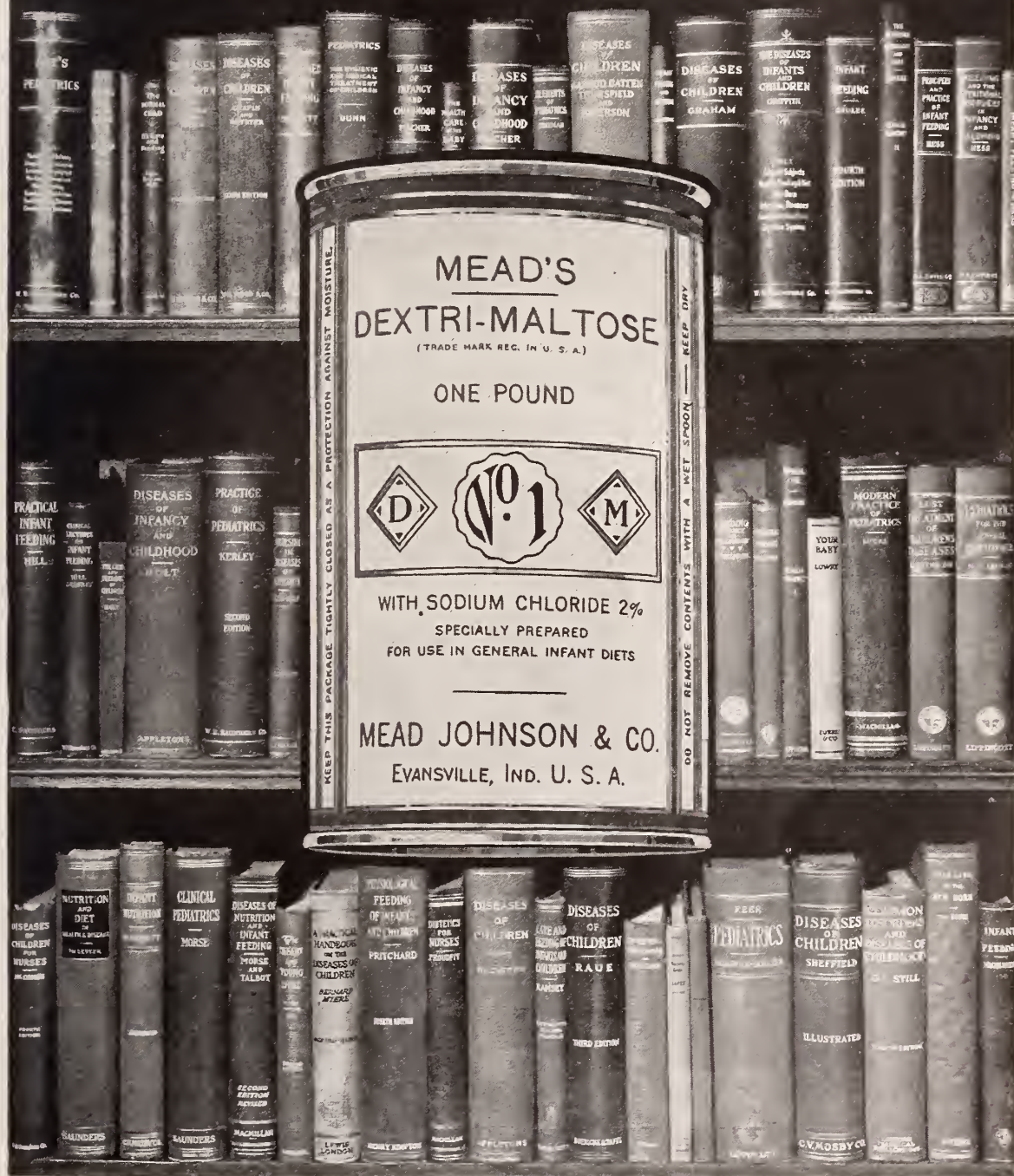
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# JOURNAL *of* The Connecticut State Medical Society

Owned and Published Monthly by  
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Editor-in-Chief - STANLEY B. WELD, M.D.,  
179 Allyn Street, Hartford, Connecticut

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KATHARINE BLUNT  
PRESIDENT, CONNECTICUT COLLEGE AT NEW LONDON



*A MESSAGE FROM  
THE PRESIDENT of CONNECTICUT  
COLLEGE AT NEW LONDON*

TO READERS OF THE JOURNAL OF THE  
CONNECTICUT STATE MEDICAL SOCIETY:

I am greatly pleased to have an opportunity to greet the members of the Connecticut State Medical Society through its Journal and to extend to them a cordial invitation to visit Connecticut College at the time of their Annual Meeting in Groton.

During the past twenty-three years a good many young women have taken their premedical work with us, and we have trained many more as dietitians and as laboratory research workers. Because of the many types of opportunity medicine offers women to minister to fundamental human needs, we have a particular interest in the profession and in its progress within the state. The inter-change of ideas made possible through the Journal and in your meetings does much, I feel sure, to further such progress.

KATHARINE BLUNT

# JOURNAL of The Connecticut State Medical Society

VOL. II.

MAY, 1938

No. 5

## Program 146th Annual Meeting The Connecticut State Medical Society

Hotel Griswold, Groton, June 1-2, 1938

CHARLES H. TURKINGTON, *President*

COMMITTEE ON SCIENTIFIC WORK

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Creighton Barker

Harold W. Wellington

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Walter A. F. Lukoski

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C. John Satti

Carl H. Wies

WEDNESDAY, JUNE 1

MORNING

Registration, Hotel Griswold.

**10:00** Call to order by the President, Dr. Charles H. Turkington.

Address of welcome, the President, New London County Medical Association.

**10:30** **Submarine Escape Training.** Lieutenant Allan S. Chrisman, Medical Corps, United States Navy.

**11:15** **Drug Problems.** Theodore G. Klumpp, Chief Medical Officer, Food and Drug Administration, U. S. Dept. of Agriculture.

**12:00** **Skin Tests to Foods and Dusts. What Good Are They?** Francis M. Rackemann, Boston.

**12:45** CLAMBAKE

**Women's Medical Society Luncheon**

Medical Experiences in Arabia, Eleanor Calverley.

**Section on Obstetrics and Gynecology Luncheon.** All members of the Society are invited.

**1:30** **Section on Orthopedic Surgery Luncheon.** The Seaside Sanatorium, Waterford. Members of the Section will be guests of Dr. John F. O'Brien, Waterford.



Spinal Tuberculosis — Conservative Treatment or Fixation, John F. O'Brien, Waterford.

Mega Cartilage and Cystic Degeneration of Menisci of Knee. Edwin Pyle, Waterbury.

Unusual Cause of Internal Derangement of the Knee — Report of Two Cases. Arthur S. Griswold, Bridgeport.  
Acetabuloplasty. Frank S. Jones, Hartford.

Localization of Pain in Back Injuries. Charles W. Goff, Hartford.

The Short Leg Factor in Low Back Pain. Edward H. Crosby, Hartford.

Myxo-Chondroma of the Adductor Tubercle. Maurice F. O'Connell, Hartford.

- 2:00 Section on Obstetrics and Gynecology.** Following a short business session motion pictures showing obstetrical technique and gynecological subjects will be shown during the afternoon. At four o'clock Dr. Roy W. Mohler, Assistant Professor of Gynecology, Jefferson Medical College, Philadelphia, will address the Section on the subject of "Gonorrhea in Women."

- 2:00 House of Delegates.** Final meeting for the election of Officers and the transaction of unfinished business.

#### **Commercial Exhibit**

**Inspection Trip.** During the afternoon there will be an inspection trip to the Submarine Escape Training Tank, U. S. N. Submarine Base.

- 4:00 Golf.** Shennecosset Country Club.

- 4:00 Section Meetings.**

*Dermatology and Syphilology.* Cutaneous and Systemic Manifestations of Lymphogranuloma Inguinale, and its Differential Diagnosis. A. Benson Cannon, New York City.

*Radiology.* Roentgenological Signs of Bronchial Occlusion, Their Differential Diagnosis and Treatment (illustrated). Aubrey O. Hampton, Harvard Medical School, Boston.

*The Connecticut Association of Medical Examiners.* Program not yet completed.

- 7:00 Annual Dinner of the Society.**

Charles H. Turkington, Presiding.

Presentation of Visiting Delegates.

Address, Humane Resources of Connecticut. Hon. Frederic C. Walcott, Commissioner of Welfare, State of Connecticut.

### **THURSDAY, JUNE 2 MORNING**

Registration, Hotel Griswold.

- 9:30** Call to order by the President.

- 9:30 A Laminagraph — An Instrument For Body Section Radiography.** Mr. Jean Kieffer, Supervisor of Laboratories, Uncas-On-Thames.

- 10:15 Re-education of The Problem Drinker.** Charles H. Durfee, Ph.D., Wakefield, Rhode Island.

- 11:00 Syphilis Control In New York City.** John L. Rice, Commissioner of Health for the City of New York.

- 11:45 Changing Attitudes In The Treatment of Peptic Ulcer.** W. Harley Glafke, Associate Gastro-Enterologist, St. Luke's Hospital, New York City.

- 12:30 PRESIDENT'S LUNCHEON**

Presentation of the Incoming President, Hugh B. Campbell, Norwich, and the President-Elect.

Address of the Retiring President, Charles H. Turkington, Litchfield.

*Commercial Exhibit.*

- 2:00 The Connecticut Occupational Therapy Association.**

**Sports Program.**

- 4:00 Section Meetings.**

*Eye, Ear, Nose and Throat.*

1. Malignant and Non-Malignant Tumors of the Larynx. John Miller, Greenwich.

2. Motion Pictures of Eye Operations. R. Townley Paton, New York City.

3. Fifty Years of Experience in Otolaryngology. Henry L. Swain, New Haven.

*Anesthesia.* Joint Meeting with the American Society of Anesthetists.

1. An Unfavorable Reaction Following the Administration of Avertin, Case Report. George A. Wulp, Hartford.

2. Discussion of Atelectasis, Case Report. Harold F. Bishop, Hartford.

3. Physiology of Respiration. Howard W. Haggard, New Haven.

*Neurology and Psychiatry.*

1. Psychiatry and General Medicine. A symposium.

- a. The Point of View of the General Practitioner. Charles G. Barnum, Groton.

- b. The Point of View of the Psychiatrist. Eugen Kahn, New Haven.

2. Psychiatric Service for the Community. A symposium.

- a. The Community Point of View. Lloyd J. Thompson, New Haven.

- b. The State Hospital Point of View. Clifford B. Moore, Newtown.

3. General Discussion.

Otto G. Wiedman, Hartford.

Francis M. Schokley, Stamford.

George K. Pratt, Westport.

*Hezekiah Beardsley Pediatric Club.* Endocrine Abnormalities in Childhood. Joseph C. Aub, Boston.

**6:30 Section Dinners.**

*Eye, Ear, Nose and Throat.* Dinner in honor of the members of the Section who are over seventy years of age.  
*Anesthesia.* Hypnotism and its Relation to Anesthesia, with Demonstration. B. B. Raginsky, Montreal, P. Q.  
*Neurology and Psychiatry.*

*Hezekiah Beardsley Pediatric Club.*

Minor changes in the program may be necessary.

Section meetings and dinners are open to all Society members.

Hotel reservations need not be made in advance, but at the time of registration.

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**CALL FOR ANNUAL MEETING OF THE HOUSE OF DELEGATES 1938**

The Council has voted that the 1938 annual meeting of the House of Delegates of the Society will be held on Wednesday, May 25, commencing at 10:30 A.M., in the auditorium of the New Haven Medical Association, 364 Whitney Avenue, New Haven. The decision to separate the meeting of the House of Delegates from the Annual Meeting of the Society was reached by the Council for two reasons:- 1. The By-laws of the Society require that the annual meeting of the House be held during the month of May, and since the general meeting of the Society will not be held until June 1 and 2, the meeting of the House could not legally be held at that time;- 2. It appears desirable to separate the meeting of the House from the general meeting, in so far as it is possible, in order that the delegates may attend the scientific sessions on the program of the general meeting.

At the meeting of the House of Delegates on May 25, all routine business will be transacted and completed if possible, except the election of officers for the ensuing year. The By-laws again provide that these elections must take place at the time of the annual meeting of the Society. For this reason a second meeting of the House will be held during the Groton convention. The time for this meeting has been set by the Council in the early afternoon of June 1 when new officers who will be nominated on May 25 will be elected and unfinished business considered.

Printed agenda for the meeting on May 25th will be sent to all delegates.

Creighton Barker, M.D.

*Executive Secretary*



# Regional Enteritis

## With Report of Two Cases

BENEDICT B. LANDRY, M.D., Hartford, Conn.\*

John Abercrombie of Edinburgh in 1828<sup>1</sup>, Proust in 1907<sup>2</sup>, Braun in 1909<sup>3</sup>, Moschowitz and Wilensky in 1923<sup>4</sup>, and others have called attention to non-specific inflammatory tumors of the intestine. In one of his last articles on acute appendicitis, the late John B. Deaver<sup>5</sup> included an illustration of a condition associated with appendicitis which indicated an ileo-caecostomy. As one studies this illustration, showing the narrowed and apparently thickened terminal ileum, one is convinced that Deaver was dealing with a case of regional enteritis. It remained, however, for Crohn, Ginzburg and Oppenheimer<sup>6</sup> to place before the medical profession information of great importance when in 1932 they described what appeared to them to be a distinct clinical entity and which they called "regional ileitis".

While this granulomatous disease seems to be a condition more or less of an entity, it is not confined solely to the terminal ileum but has been found in other parts of the intestinal canal, for example, in the jejunum, the more proximal segments of the ileum, the caecum, and ascending colon. There have been found also multiple lesions of this character. The disease has occurred more frequently, however, in the terminal ileum, up to 25 to 35 cm. of its length, oral to the ileo-caecal valve, and it is significant that in the 14 cases which comprised the basis for the original paper by Crohn and his associates, the pathology apparently was confined to the terminal ileum. Hence, the term "regional ileitis" was at that time a well chosen one. More recently in reports of a series of 50 cases from Mt. Sinai Hospital in New York<sup>7</sup>, 74 per cent were in the terminal ileum. As experience with the pathology and surgery increased, however, the term "regional enteritis" because of the segmental occurrence of the condition in various parts of the intestinal tract, became more correctly used. "Chronic cicatrizing enteritis" and "chronic ulcerative enteritis" are other terms

which are used but which seem less applicable since they indicate absence of acuity in the pathological sense and because they comprehend only certain stages in the progress of the condition. It is fairly well established that an acute form exists and there are excellent illustrations in a recent article by Sproull<sup>8</sup>. Leonardo<sup>9</sup> of the Mayo Clinic also recently described a case which was operated on for chronic appendicitis. The appendix was removed through a small incision with considerable trauma and approximately a week later, because of signs and symptoms which presented, re-operation was necessary. His description of the condition found would seem to show that it was that of acute enteritis of the ileum. As further regards the terminology, it is of interest to note that Allen and Kendall of the Hartford Hospital<sup>10</sup>, previous to Crohn's publication, used the name of "chronic granulomatous ileo-colitis" which, for the chronic stage, was a very correct one.

Even though it is over five years since the condition first attracted attention, it is only very recently that we have been more mindful of it. Some think that there is actually an increased incidence of the condition but it is more likely that the lists of cases which have been reported in the literature since 1932 are being added to rather frequently because of greater alertness. It should be considered always in a differential diagnosis in acute and chronic abdominal conditions, especially when there are present certain features in the symptoms and physical signs. Many surgeons now recall patients who were operated on, the diagnosis made of inoperable carcinoma or sarcoma, or ileo-caecal tuberculosis, little or nothing definite done in the way of surgery, and yet some of these patients did not behave clinically in conformity with the diagnosis, but apparently recovered and maintained good health for a long period, certainly long enough to disprove the original diagnosis and

\*Attending Surgeon, St. Francis Hospital, Hartford.

lead now to the one which is presumably correct. While it is true, as borne out by reports in the literature, that the condition of regional enteritis may spontaneously resolve, the pathology of the condition as originally described by Crohn and his associates and to which very little of significance has been added, definitely indicates the path of treatment, for the majority of cases, to be surgical eradication of the diseased structures with restoration of the intestinal canal, without palliation or temporizing, except in the minority of cases.

### Etiology

Before giving the pathology, which is really the best introduction to one's knowledge of this disease, since it serves to clarify the symptomatology and physical findings including particularly the more or less characteristic reontgenological findings, mention should be made concerning etiology. The inflammatory reaction, being quite focal in character, at times gives to the serosa the appearance of tubercles and, furthermore, the frequent findings of giant cells — which do not seem to be an essential feature, however — have led some to think the condition to be an atypical tuberculous one. Repeated sectionings in search of the Koch bacillus, guinea pig inoculations and other detailed investigations have practically disproven tuberculosis as the cause. Felsen<sup>11</sup> is of the opinion that the bacillus dysenteriae is the cause and he has described cases in which the blood serum had positive agglutinative properties for this particular organism. His work has not been corroborated and the cases are too few in number to make conclusions certain but his work indicates at least one possible source. A. A. Berg, who has had extensive experience in the surgical handling of cases of enteritis, is of the opinion that ileitis, at least, is due to the extension of disease from the colon, maintaining that there has occurred "incidental over-riding of the ileo-caecal valve in a so-called right-sided colitis". Of course, with this explanation it is hard to account for multiple involvements of the bowel and for the condition as it has been found distant to the ileo-caecal valve as in the proximal jejunum. The best that we can say at present is that enteritis is presumably infectious in origin. In the two cases which we have seen the caecum and appendix were involved in the granulomatous mass and the appendix could not be identified as

such, either grossly or microscopically. We have been of the opinion since reporting our first case as one of fibro-plastic appendicitis (that is, using the term in the broader sense as describing involvement of the terminal ileum, caecum and appendix but which we now know to have been regional enteritis) that infection from the appendix is the cause in at least some instances. Again, in fibro-plastic appendicitis in the narrower sense, that is, pathologic changes mostly confined to the appendix, the disease process often extends to the caecal wall. The microscopic and gross appearances of appendices thus diagnosed are similar to the pathological findings in enteritis<sup>1</sup>. Felsen<sup>5</sup> alleges many cases of ileo-caecal granuloma to be appendicular forms of bacillary dysentery. While we know that spontaneous recovery occurs there are instances reported where the condition of terminal ileitis has cleared up following the simple removal of the appendix and following short-circuiting operations only. Since in many disease processes there are various degrees of acuity and development, is it not possible that in some instances, at least, the removal of an infectious focus such as a diseased appendix, or the placing at rest of an area initiated by a diseased appendix, by a side-tracking of the intestinal contents, has given rise to a cure in some of the milder cases, a result similar to that occurring in the biliary tract where removal of the gall-bladder interrupts the infectious chain? Again, referring to Leonardo's case which apparently had a simple appendix removed through a small incision with, as he states considerable trauma to the bowel, one might ask, "Did not an infectious agent from the appendix initiate the process found approximately eight days later at re-operation?" Moreover, Pemberton and Brown cite cases of enteritis found with associated acute appendicitis or chronic appendicitis in whom removal of the appendix and nothing more was done. In those whom they have traced there have occurred as yet no further symptoms. It should be emphasized that the above remarks, so far as they refer to surgical treatment, relate quite generally to minor involvement and not to the terminal stages of the disease, enteritis.

### Pathology

The pathology varies with the stage of the disease. When acute, the gross findings are a roughened, granular serosa with at times focal inflam-



matory areas giving the appearance of tubercles. The bowel is reddish, injected, oedematous, swollen and thickened, sometimes as much as two to three times the normal thickness. To the palpating fingers is given the feeling, as someone has described it, of a "rubber hose". The fingers likewise readily detect the narrowing of the bowel lumen. The mesentery is thickened and oedematous and the lymph nodes therein are hyperplastic. When opened, the first thing noticed is the diminished calibre of the bowel obviously due to the inflammatory thickening of the wall. Ulcerative processes, with swollen mucosa between and the enlarged folds of mucous membrane, give a corrugated appearance. In some places the mucous membrane is denuded. In the two patients herewith reported, the caecum in both and in addition the ascending colon in one, were involved. These would be grouped under the so-called "combined type of terminal ileitis" of Crohn. Berg asserts that in many of the cases of terminal ileitis the colon is affected by inflammation, not of the same type as that in the ileum, one of the principal differences being the absence of ulceration. Occasionally, as exemplified in one of these patients, fistula formation occurs and the fistula may be internal connecting with various parts of the bowel, with the omentum or with the abdominal parietes, or the fistula may be external. When enteritis occurs in the terminal ileum the involved segment generally measures 25 to 35 cm. (10-14 inches) starting at the ileo-caecal valve, and the pathological process does not end too abruptly but rather there is a tapering-off or more or less diffuse termination. A slight amount of free peritoneal fluid may be present.

In the chronic case, while tubercle-like formations may occur, the serosa loses its glossy appearance and the intestine is more firm, generally just as much, if not more, thickened, but with less oedema and engorgement. (Fig. 1). The exudative process is replaced by the fibrous. The mucosa is atrophic but occasionally hyperplastic areas give a diminutive polypoid appearance. The intestine proximal to the involved segment is apt to be more dilated at this time than in the acute stage because of the gradual stenosing and tightening tendency of the fibrous tissue of the segment which is the seat of enteritis.

Microscopically there are no characteristic



Fig. 1. Gross specimen removed from R. R.— female patient, aged 24 years.

features. Various degrees of acute, sub-acute and chronic or healed inflammation are evidenced by the relative proportion of polymorphonuclears, round cells, eosinophils, plasma cells and fibro-plastic tissue. (Fig. 2). Giant cells are not infrequently found and are ascribed by Crohn to small particles of vegetable matter which, having been caught in the ulcers, migrate to the lymphatics, become encapsulated and give rise to the foreign body giant-cell reaction. While, as stated above, the condition now is thought definitely not to be of tuberculous origin the presence of these giant cells in specimens removed previous to the appearance of Crohn's original article would easily lead to the belief that the Koch bacillus was the cause.

### Symptomatology

Here, as with the pathology, little has been added to the original article of Crohn and his co-workers. In fact, a knowledge of the pathology serves in a more than general way as a guide to what to expect regarding the clinical features and course of enteritis and further serves to show why the X-ray part of the examination in the chronic stage is so important.

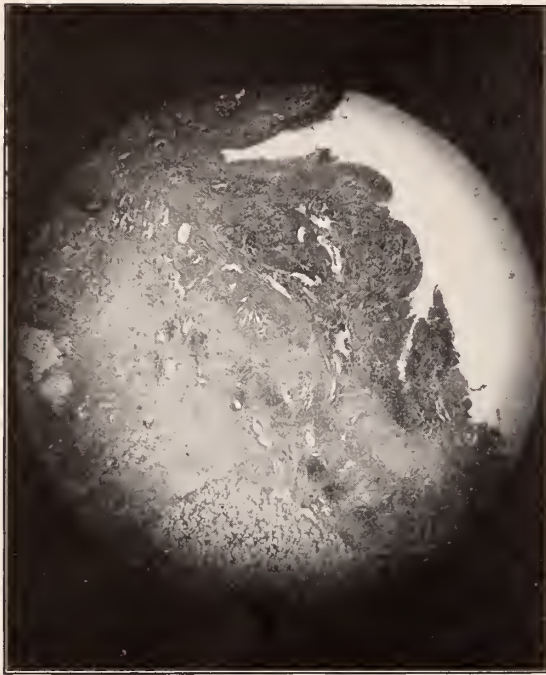


Fig. 2. Microphotograph of specimen from R. R.

First of all it seems to be a disease of young adults. The average age in a series of 50 cases reviewed by Jellen<sup>7</sup> was 24 years. The ages of our two patients were 29 years for the male and 23 years for the female. The proportion of males to females in the tabulated series here presented is 2 to 1 approximately. Some have thought that there might be a racial peculiarity or susceptibility since so many of the cases reported in the literature are from Mt. Sinai Hospital in New York and Beth Israel in Boston. Our male patient was an American whose ancestors three generations removed were born in this country and the female patient was of Italian extraction.

The first clinical group to be considered would naturally comprise those in the acute stage or in an acute flare-up of a chronic process. In this group the patients present themselves with the clinical features of acute appendicitis from which at times, enteritis, particularly when occurring in the terminal ileum, will be impossible to distinguish. Acute appendicitis was the diagnosis in the first case encountered, namely, that of the male patient. The typical fever, right lower quadrant pain, acute onset, plus tenderness without a palpable mass, leukocytosis, et cetera, were present. In attempting cleavage along a

thickened area thought to be the appendix, the bowel was entered and it was considered better judgment to drain the faecal material and await developments. A similar experience has been reported by others. Later in this individual a fistula developed and eventually radical excision was done.

Next should be considered the symptoms of the ulcerative stage which are similar to those found in non-specific ulcerative colitis. These are diarrhea, lower abdominal pain, occasionally fever, loss of weight, anemia and anorexia. The second patient exemplified this stage as well as the stenotic in which the pain is apt to be a little more severe, more colicky, and accompanying which there may be distension and occasionally vomiting. The symptoms connected with the development or existence of fistula, whether internal or external, are essentially the same as above.

The duration of illness in these cases ranges from several months to years. For example, Pemberton<sup>12</sup> gives the history of a patient observed at various times from 1900-1935, indicating that there may be recurrent periods of activity and quiescence. In our female patient the symptoms had been present for three months while in the male patient, who, as we stated, was seen in an acute attack, there was very little in the history relating to previous indigestion or abdominal symptoms. This latter patient serves to show that at times, even with a marked pathological process existing in the bowel, symptoms and signs may be very few. His course also shows with what suddenness such a condition as enteritis may assert itself.

The most frequent symptoms are abdominal pain, diarrhea and loss of weight, and of these, pain is apparently the most common. (Fig. 3). It is lower abdominal and often right-sided, being more frequently of a colicky nature. At times adhesions of the affected loop or loops of bowel to other structures or the presence of dissecting fistulae give rise to distant pain. Diarrhea, while a frequent symptom, is not too severe. Blood is occasionally found in the loose stools. About 50 per cent of those with diarrhea will have blood, generally found microscopically. Vomiting is not often present and as one would expect from the pathology occurs more in those who have had the other symptoms longer and in whom the stenotic condition of the bowel is more pro-



SUMMARY OF CLINICAL FINDINGS  
(AFTER JELLEN, MOUNT SINAI HOSPITAL)

Number of cases	50	
Age	14-54	(average 24)
Sex	Males	34 (68%)
	Females	16 (32%)
Previous appendectomy		14 (28%)
Abdominal pain		36 (72%)
Diarrhea		26 (52%)
Blood in stools		13 (26%)
Vomiting		14 (28%)
Loss of weight		30 (60%)
Temperature		19 (38%)
Palpable mass		29 (58%)
First symptom	Diarrhea	17 (34%)
	Pain	33 (66%)
Anemia		21 (42%)
Fistulae		18 (36%)
	Internal	10 (20%)
	External	8 (16%)

Fig. 3. Statistical table.

nounced. Loss of weight is a frequent finding and nausea and anorexia are sometimes noted. Fever, except in the acute stage, is not frequently found and when present is not apt to be very high.

The most common physical finding is a palpable, often tender, mass in the right lower quadrant, occasionally felt by rectum. With involvement in adhesions or with fistulous tracts connecting with different parts of the bowel, the mass may be found elsewhere than in the right lower quadrant; for example, in the left side when the sigmoid is involved or high in the right side when the ascending colon or hepatic flexure of the colon are affected. With involvement of the mid-enteron the mass may be felt in different areas of the abdomen, depending upon the location of the segment affected. The emaciated and anaemic appearance of the patients is a frequent finding together with the presence of external fistulae. When marked stenosis is present the symptoms of intestinal obstruction may be in evidence. A large proportion of patients have had previous abdominal operations, many of which were undertaken for the removal of an appendix which in some cases showed acute inflammation and in others chronic changes. Adams<sup>13</sup> states that 8 of 9 cases reported by him had previous operations and Pemberton says that in 26 of the 39 cases in his reported series, one or more unsuccessful operations had been performed. From these figures it is seen that with a history of a previous abdominal operation without relief, with symptoms presenting similar to those above outlined, the condition of enteritis

should be kept uppermost in mind.

In the chronic stage the X-ray findings are more typical perhaps than any other, particularly when the terminal ileum is involved. In the acute stage X-ray will be resorted to infrequently because of the confusion which will inevitably prevail in differentiating acute appendicitis. With our present knowledge, whenever a patient presents the symptoms above outlined and the necessity for ruling out acute appendicitis does not exist, X-ray examinations should be made and will prove to be of tremendous value. For example, patients with persistent diarrhea when ulcerative colitis is excluded, or patients with so-called 'colitis' used as an all-inclusive term for any disorder accompanied by diarrhea, patients with persistent symptoms following an appendectomy, and, in particular, patients with a right lower quadrant mass or with external fistulae should be subjected to X-ray investigation. In the two patients we encountered most of the typical X-ray findings were present. First of all, stenosis of the segment of the bowel involved, which is most typical when the terminal ileum is the affected segment, is manifested by a narrow appearance of the opaque medium giving the so-called "string-sign" of Kantor<sup>14</sup>. The thin film of the opaque material



Fig. 4. Barium enema showing deformity of caecum. Female patient R. R.



Fig. 5. Roentgenogram of R. R.— opaque medium given by oral route showing "string-sign" of Kantor.

leading to the caecum when the ileum is involved and the similar narrowing for the dis-



Fig. 6. Roentgenogram of J. C., male patient, aged 29 years — opaque medium given by oral route showing marked deformity and irregularity in ileo-caecal region. This roentgenogram taken after preliminary drainage of the bowel.

tance of the amount of the bowel involved when other segments are affected, is due to the reduction of the calibre of the bowel to one-half or one-third its normal size. (Figs. 4, 5, and 6). Dilatation of the intestine proximal to the segment of bowel affected is another X-ray finding. Besides these, there occur "puddling", fluid levels in dilated loops of intestines and deformities or abnormalities of contour. So far as the terminal ileum is concerned, when it is the seat of enteritis, the X-ray signs are practically pathognomonic. If there be external fistulae formation, injection of some opaque medium into the fistulous tract may add considerably to one's knowledge. (Fig. 7).



Fig. 7. Lateral view of patient J. C. Ring represents the site of the umbilicus. The sinus has been injected with Beck's bismuth paste. Shows extent of fistulous tract.

### Differential Diagnosis

Particularly to be differentiated are ileo-caecal tuberculosis of the hyperplastic type and non-specific ulcerative colitis. Either may resemble regional enteritis when located, as is more frequently the case with the latter, at the terminal ileum and where as in the so-called "combined form" the caecum is involved as well.



Other granulomata such as the amoebic, actinomycotic, Hodgkin's disease and lymphosarcoma must be differentiated as well as lesions of a more or less chronic nature associated with fever and diarrhea, with or without a mass in the right lower quadrant, for example, appendiceal abscess, malignancy and the so-called fibroplastic appendicitis. Perhaps in time it will be proven that this latter condition should be included in the regional enteritis group. Frequently the diagnosis will be made only with the abdomen open or after examination of the removed specimen. Colitis will be diagnosed occasionally by the barium enema or by sigmoidoscopy when this can be safely done. As with carcinoma, it is in the later age groups that colitis is more frequently found while enteritis is found more frequently in the younger age groups. Hyperplastic tuberculosis of the bowel is perhaps much less common than generally supposed. Pemberton has records of 15 cases in 30 years of resection of the caecal region for this type. We have seen one example involving the rectum during the past year. Actinomycosis is infrequently found in this geographical area. Another point to remember is that in tuberculosis, Hodgkin's disease and lymphosarcoma often there will be clinical evidence of a systemic condition such as enlarged nodes, tuberculosis elsewhere in the body or a mediastinal tumor.

A typical pathognomonic clinical syndrome has not been formulated but when the condition is kept in mind it should be emphasized again that X-ray investigation is of great value in arriving at a diagnosis.

CASE 1. J. C., male, aged 29, was seen on August 23, 1934, when he complained of pain and tenderness of the lower abdomen, nausea and vomiting. He had been taken suddenly with pain early in the morning and this was followed by nausea and then vomiting. The physical examination showed tenderness in both lower abdominal quadrants but more marked on the right side. No mass was felt. The temperature was 100, pulse 100 and respiration normal. The blood count was 15,900 with 87 per cent polymorphonuclears.

He was operated on and a large inflammatory mass was felt over the brim of the pelvis. The ileum and caecum were involved in this inflammatory mass. There seemed to be a line of cleavage, in the development of which the finger entered a cavity which proved to be rigid-walled intestine although there was no immediate issuance of fecal material. A stiff rubber tube was placed in this cavity and three cigarette drains inserted down to and below the mass. Fecal material drained for about eight days, then stopped, after which purulent discharge continued up to the time of his operation on April 8, 1935 when an ileo-colostomy, side-to-side method, was done by

Dr. A. M. Rowley. At this time the fistula was found to lead down to the junction of the ileum and caecum. Not only the terminal ileum but all the caecum was thickened. On May 14, 1935 a resection of the terminal ileum, caecum and ascending colon was done by Dr. A. M. Rowley.

Pathological Report: No. 29858, May 14, 1935, Hartford Hospital. Dr. R. E. Kendall. Pathological Diagnosis: Chronic granulomatous typhlitis (tuberculous?).

MAC: The caecum and 6 cm. of terminal ileum. The mucosa of the caecum is somewhat polypoid but smooth throughout without ulceration. The mucosa of the ileum shows many small raised semi-translucent gray nodules 1 to 2 mm. in diameter. The appendix could not be identified but approximately in its location there is considerable induration and fibrosis of the surrounding tissue. No gross evidence of malignancy. A few lymph nodes are present in the adjacent mesentery, the largest 1 cm. in diameter, showing nothing remarkable grossly.

MIC: Section through the thicker portion of the caecal wall shows a marked increased fibrosis. There is superficial ulceration of the mucous membrane and through the wall a fixed tissue reaction arranged in a granulomatous manner frequently associated with a secondary acute inflammatory exudate, is present. There are a few multinucleated giant cells present of the Langhan's type and the histological structure is compatible with a tuberculous lesion. Section of the ileum shows a chronic inflammatory infiltration present. No definite tuberculous involvement can be seen and here the granulomatous arrangement is not present.

At the time of this patient's first operation he weighed around 120, now weighs 135 and enjoys good health.

CASE 2. Referred by Dr. L. P. James. R. R., aged 23, housewife, one child born in 1932. In 1933 operated on for recto-vaginal fistula. This is the only past history of any significance. She had always been in good general health.

The chief complaint was abdominal pain which had its onset 3 months prior to her admission to the Hartford Hospital on October 19, 1936. The pain was cramp-like, occurring 5 to 10 times daily, located in the right lower abdomen varying in severity but at times requiring her to stay in bed. There was no radiation of the pain. Her appetite was poor. There were considerable gaseous eructations, nausea, but no vomiting and her bowels moved frequently and were quite watery. In the past 3 months she had lost 15 pounds. Blood pressure was 126 systolic, 90 diastolic and the hemoglobin was 64 per cent.

At operation October 21, 1936, there was presented a firm mass in the lower right quadrant which consisted of about 9 inches of the terminal ileum and also involved the caecum, extending upward on the ascending colon for a distance of about two and one-half inches. This could not be delivered into the wound. The appendix was incorporated in the granulomatous mass and could not be identified as such. The ileum proximal to the affected segment was anastomosed to the transverse colon by the side-to-side method. Healing was perfect and the bowels, while still somewhat loose, functioned well.

On November 6, 1936 resection was done. The affected ileum, caecum and ascending colon up to the hepatic flexure were resected. This patient had two transfusions, one on the day of operation and one the following day and after a stormy period of about 4 to 5 days post-

operative, she went on to a good recovery. The wound drained for about 8 days and then stopped more or less abruptly.

Pathological Report: No. 34873, November 6, 1936. Hartford Hospital. Dr. R. E. Kendall. Pathological diagnosis: Chronic ulcerative ileitis.

MAC: 22 cm. of terminal ileum and 15 cm. of caecum and ascending colon. Appendix could not be identified. Wall of the ileum is thickened up to 5 mm. and mucosa is irregularly ulcerated and thrown into large plaques and folds. It is not clear grossly that the line of surgical excision is beyond the point of mucosal involvement. No definite lymph nodes can be identified. Photographs are made.

MIC: Section shows superficial ulceration of the mucous membrane with a 4 plus thickening of the wall, with an increase in fibrous tissue most marked in the serosa. Through the mucous membrane, and extending in focal areas through the muscle coat and in the serosa, is a three plus acute and chronic inflammatory infiltration made up of polymorphonuclears, round and plasma cells. There are no well defined granulomata or fixed tissue reaction, and no giant cells are seen. The regional lymph nodes show some increase in lymphoid follicles. Sinuses are filled with lymphocytes. There is no suppuration or evidence of tuberculosis.

### Treatment

The treatment is essentially surgical but uniform opinion as to the best surgical procedure does not exist. When fistula is present or when obstructive signs and symptoms due to the stenosis of the diseased bowel forcibly assert themselves, one may safely say that there is a definite indication for radical surgery. Differences of opinion may arise here as to whether the diseased area shall be removed by a one-stage or by a two-stage procedure. The condition of the patient and the extent of the involved bowel would seem to be the determining factors as to which method is carried out, but, as a general rule for the average surgeon, it will be safer to do a two-stage procedure, first affecting an anastomosis of normal small bowel to some normal part of the colon, any part of the colon from the proximal transverse region to the sigmoid, but preferably at either of these latter segments. Mixer<sup>15</sup>, on the other hand, feels that a one-stage procedure should be done because of the rapid development of the condition at times and the difficulty of dealing with it later. Moynihan<sup>16</sup> says, "It is inadvisable to do most operations in two stages, as it gives the patient two chances of dying." But frequently when resection is done in two stages, particularly in the more fulminating cases, it is found after the new stoma has been functioning for several weeks

and the patient comes to re-operation for resection that there has often occurred a great diminution in the structure of the inflamed portion of bowel and mesentery and the resection is consequently considerably easier. However, the fact should not be overlooked that occasionally after a short-circuiting operation, fistula formation, internal or external, quickly develops and the state of affairs found at a subsequent operation is very difficult to handle.

Early acute cases are seldom seen and it is obvious that some patients because of a very acute granulomatous involvement may be so ill that little can be done. Mention has even been made of the modified Mikulicz operation, that is, bringing the ileum in combination with the lower ascending colon outside the abdominal cavity and proceeding as in the operation for carcinoma of the colon, or when the mid-enteron is affected bringing the small bowel loops outside of the abdomen. This procedure is seldom indicated, however, and offers very little promise. Some surgeons have encountered cases of acute enteritis, have replaced the affected bowel in the abdomen and done no more except to close the wound in the abdominal wall. Koster has had at least 6 of such cases. Rixford and DeCoursey report similar cases with similar procedure, or lack of it, if one prefers, and Crohn states that he has knowledge of two other cases. Apparently, to date, these patients have done well but as Pemberton asks, what is the future for them? Most patients are young adults and further reports in the literature will prove whether the cure is apparent and temporary or real and lasting. Undoubtedly spontaneous cure has occurred for it is reasonable to assume that many of the surprising cures of 'ileo-caecal tuberculosis' and more spectacularly the quiescence of 'carcinoma' of the bowel in the ileo-caecal region were instances of enteritis, erroneously diagnosed, that went on to resolution with return of the bowel to normal. Being aware of this can we bring ourselves to leave the bowel untouched? Reference again is made to Pemberton's opinion that there may be recurrent periods of activity and quiescence.

Recurrences have been reported in the literature after every type of procedure, whether skillful neglect, resection, entero-colostomy, either palliative or permanent, et cetera, and this matter of recurrence must be seriously considered as



we attempt to arrive at the best procedure. First of all, the condition of enteritis may occur in different segments and if any segment is overlooked there will be not really recurrence but a continuation of the disease. It should be emphasized that thorough exploration is therefore required. Berg has favored multiple resections for multiple involvement. Also, if, as seems most likely, the condition is infectious in origin, is it not possible that the patient again may, for some reason or other, become the victim of the same infecting agent? An apparent racial susceptibility to the primary occurrence of this disease has been referred to. Shearer and Jackson<sup>17</sup> report a Hebrew patient with two recurrences after apparently adequate resection at each operation. Another consideration which might account for recurrence, which again in the true sense is not recurrence but a continuation of the initial process, is inadequate removal. While grossly the extent of the inflammation seems quite demarcated, we do not find this so microscopically. Therefore, the resection must be made a considerable distance beyond the grossly affected bowel. This is particularly true in the ileo-caecal and right colic regions where the lymph glands are more numerous than in the left colic area. The extent of resection should be determined by the extent of the lymph-gland hyperplasia and mesenteric oedema, rather than by the gross appearance of the bowel and the supposed area of limitation of the granulomatous process. A few cases have been reported in which the diversion of the fecal current by an enterocolostomy has not been complete, that is to say, the small bowel is attached to the colon but the ileum distal to the anastomosed segment has not been divided. One can readily visualize that the diseased area is not completely at rest because the diseased bowel is still subject to the irritative affect of the fecal contents. Recurrences, so-called, may often ensue when this method is used.

With the known possible eventualities of the disease, namely, apparent spontaneous cure, continuing ill health for the patient and serious complications such as fistula and stenosis, the question may be asked, how can we be sure of the future course of the disease unless we resect? The answer obviously is that we cannot be sure. It is significant that even though the amount of time elapsed is not long since their operations on a large series of cases, little mention of recur-

rences has been made by Berg, Adams, Mixer, Pemberton and Brown; also, it is interesting to note that even though the waiting period between the first and second stages usually is not more than 3 to 5 weeks, there has been an improvement in the condition represented only by a decrease in the inflammation that one would expect by putting the bowel at rest, without much evidence of resolution. Mixer has called our attention to the rapid development of complications in the same length of time, so again we must ask ourselves which result will be obtained, "Resolution of the lesion or progression with serious complications?" We are in much the same position in the care of enteritis as we are in the care of acute cholecystitis, a condition for which many are now advocating early operation because they are of the opinion that there is no way by which they can determine how far the pathology is going to extend or how severe the complications may be, or if complications will occur at all. Even peptic ulcer in some instances heals spontaneously but we know only too well that it is a condition with potentially severe complications, namely, hemorrhage, perforation and stenosis.

The most desirable treatment therefore, must be attained only after a consideration of the worst conditions that may develop. These are stenosis, abscess or fistula formation, and occasionally involvement of other organs.

The results of resection have been good. Berg who undoubtedly has done more of these cases than any other surgeon, particularly enteritis of the terminal ileum, and who favors the one-stage procedure and even multiple resections, when indicated, had but one surgical death in a series of 32 cases. All of Adams's 9 cases made good recoveries and are well, 3 months to 4 years after. The two cases herewith reported, the male now 3 years since operation and the female over one and a half years after are in excellent health.

One conclusion may be drawn with safety from statistics thus far available and that is that results of resection have been uniformly and unusually good. Recurrences have been relatively few. A further conclusion to be made is that a fairly large proportion of those having nothing done or for whom palliative short-circuiting operations have been performed have presented themselves for re-operation with serious complications. From our knowledge of the pathology

we may anticipate that such complications must occur in a large proportion of the patients so treated. The resection procedure may be considered as preventive surgery regardless of ones belief as to spontaneous cure. By resection we shall be able to prevent more successfully the severe complications, at times inoperable, that are found to occur in the later stages of the disease.

When figures thus far produced, therefore, show results so excellent, should we not eradicate the diseased area at the outset whether it be by a one or a two-stage procedure and never temporize unless involvement is very slight? If we do, then along with Crohn and Pemberton, we shall not have to ask the question: "What is the future of the patients who have had skilful neglect, an appendix removed or who have been allowed to retain a segment of bowel which is the site of enteritis of the type discussed or who have had a palliative short-circuiting operation?"

It is desired herewith to express thanks to Drs. A. M. Rowley and R. E. Kendall for their aid.

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#### HOSPITAL RADIOLOGISTS AND PATHOLOGISTS IN CALIFORNIA

The California Medical Association has openly expressed itself in favor of having doctors who practice radiology and pathology rent space and equipment of hospitals instead of having the hospitals hire the doctors. It is believed that this move will improve the care of sick people. It should be a distinct advantage to the doctor to be in the one place at all times — his office. His work will be tied to his name, his services will be of a doctor to other doctors and their patients. Thus it will be possible to develop in hospitals radiologists and pathologists who are not just doers of medical chores, but who can cultivate careers in which they can really take pride. The presence in the hospital of these successful specialists will prove attractive to the staff, whose patients make the hospital's prosperity.—*Cal. & West. Med.*, Feb., 1938.



# A Short Talk on Medical Libraries\*

ARCHIBALD MALLOCH, M.D., (McGill), F.R.C.P. (Lond.)

Librarian of the New York Academy of Medicine

Today is an occasion for rejoicing as you must all be very happy to know that this excellent portrait of Dr. Steiner is to hang in the house of the Medical Society for which he has delighted to labour during so many years, ever since 1903. In honouring him, you have honoured yourselves. Better than any portrait is the presence, itself, of your worthy Librarian whose name your Library has so rightly borne for the past year. May he live long to carry on his practice in and around Hartford, to work here amongst the books he loves so well, and to continue his historical writings for which he is justly famed.

Dr. Steiner is the man, not I, who should talk to you today about medical libraries, for compared with him, I am a new-comer, so to speak, to the ranks of medical librarians. And what is there new to be said about medical libraries, especially to those who like you have such a good and well run one, and use it so much. Always, it seems that audiences consist of those who have least need to hear! I, therefore, apologize if all that I say seems like "dried tongue", as a minister friend of mine used to speak of his sermons!

I do not believe there is a town in the United States of the same size as Hartford which possesses a better medical library than you have unless it be one serving a medical school directly. You will pardon my running over the history of your Library briefly, but it must be a source of pleasure to see how it has grown in quality as well as in quantity. It was founded in 1873 by the Hartford Medical Library and Journal Association, and was handed over to the Hartford Medical Society in 1890. The Library, in its early days, owed much to the good work of Dr. Chamberlain who had graduated from the College of Physicians and Surgeons in 1871. In 1903, Dr. Steiner, as I have said, became your Librarian, and in 1912 when your Library Annex was built Dr. Abraham Jacobi came from New York and delivered the principal address. Since

then, Dr. Steiner has had a full-time Assistant Librarian. Miss Rogers, as you know, has filled this position with great distinction since 1925. The latest figures show that you have about 20,000 volumes, and, remember that in 1903, when Dr. Steiner took on your library, you had but a scant thousand. You take 149 current magazines including the most important ones in foreign languages. These statistics do not tell, of course, of the rare medical Americana you have on your shelves, especially the early writings of Connecticut and other New England physicians. Many of these medical books and pamphlets were collected with ardour by Dr. Steiner. On each trip to New York, it seems he tells me of some work I have not heard of before.

Dr. Steiner, your working patron, has been to your Library, what John Shaw Billings was to the Army Medical Library which celebrated its centennial a little more than a year ago; what J. R. Chadwick was to the Boston Medical Library; Samuel Lewis and Weir Mitchell to the College of Physicians of Philadelphia; John Watson to the New York Hospital Library; S. S. Purple, Abraham Jacobi, and Laura E. Smith to the New York Academy of Medicine; Eugene Cordell, William Osler, George J. Preston and John Ruhrah to the Medical and Chirurgical Faculty of Maryland; Lewis H. Taylor to the Luzerne County Medical Society; George Dock to Ann Arbor, St. Louis, and Los Angeles; C. D. Spivak, Henry Sewell and W. A. Jayne to the library at Denver; Emmet Rixford to the Lane Medical Library at San Francisco; what William Browning has been and still is to the King's County Medical Society; and what Samuel W. Lambert and Alfred E. Cohn are now to the Library of the New York Academy of Medicine. In New York, we delight to refer to Dr. Lambert as the "godfather of the Library" though, of course, we have others who work to build up a strong collection. I realize full well that my

\*Read before the Hartford Medical Society, Hartford, Conn., February 7, 1938.

honour roll is by no means complete, but it shows what medical libraries across the country owe to a few enthusiastic, self-sacrificing workers.

A year or so ago, I read a paper at Detroit entitled "Why a Medical Library?", and this time perhaps I should call my remarks "Why Not a Medical Library?", for surely here in a city devoted so much to insurance you should take the answer for granted. Doctors should carry insurance against the risks that come to them shortly after graduation: the risks of being satisfied with methods of diagnosis and treatment they have learnt in their medical schools, the risk of being content with what *was* good instead of striving for what *is* better, the risk of intellectual or mental laziness which comes often to those in the midst of a busy practice, the risk, in other words, of getting into a rut, or becoming rusty. Now there are several forms of insurance against these dangers: 1. The study of disease in private patients as well as in hospital practice, *plus* the recording of this experience in notes taken with care; 2. Discussion of problems at meetings of medical societies such as you have here; 3. The publishing of brief papers about your cases; and 4. The use, and persistent use, of medical magazines and books, so that it becomes a healthy habit. Do not think that I wish to overemphasize this last form, for did not Osler once say: "To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all" ("Men and Books")? And do not the French say: "L'annour de la médecine fait le savont, l'amour du malade fait le médecine"?

Books you all have at home, I am sure, and what better and more comfortable way is there than to read at one's own fireside, with pencil and paper to make notes as you read. Do you remember that H. J. Bigelow said of Oliver Wendell Homes that he "could get what he wanted out of a book as dexterously, as neatly, as a rodent will get meat of a nut out of its shell"? It is a good plan for a physician to purchase a system of surgery and read a little of it every day; and, in the same way, for a surgeon to read a system of medicine. We cannot expect, however, to keep up a good library at home, hence, the value of a library such as you have here.

The Walter R. Steiner Medical Library is a very good one, but you should strive continually

to make it more comprehensive. Have not you doctors some rich patients who could be persuaded to give additional funds to the Library for the benefit of medical men, and, of course, for the benefit of the public whom they take care of? A doctor should remain a student all his days; libraries will certainly help to carry on his postgraduate education. I hope you will agree with me that your Library should be strengthened in the following particulars; more money will be required to do this:

1. This Library should subscribe to a larger number of current journals and gaps in the back files of those it takes should be filled. Fortunately, the Medical Library Exchange can be made use of in obtaining back numbers and volumes.

2. It should purchase more monographs and systems as they appear; the sphere of medicine seems to become wider and wider too.

3. An effort should be made to gather together a larger collection of public health reports, paying special attention to those that deal with Connecticut.

4. An attempt should be made to gather together the best edition — I do not say every edition — of the great classics of medicine, ancient and modern, and to increase your number of works on the history of medicine and of medical biographies, for it cannot be said that any man knows any subject unless he is familiar, to a slight extent at least, with the manner in which it has developed. Some time devoted to a study of the history of medicine, or a branch of it, is not going to make you a pedant or change you from a man into a book-worm. There is a source of inspiration in biography which can be found nowhere else. This is a very busy world, so it is well to follow Sydney Smith's advice — "Remember always in books keep the best company". This Library is rich in material relating to the lives of medical men of Connecticut and the history of medicine in the State — why not help Dr. Steiner, to make it richer? No old letter written, or diary kept, by a Connecticut medico is without value as an aid to an understanding of the past. Make your collection of portraits of doctors as complete as possible also.

5. Just to show you what doctors have done besides their daily tasks and to provide yourselves with great delight, increase your group of



non-medical writings of physicians, and also collect works written by the laity in which there is a picture of a doctor, or of some aspect of the medical profession, because it is important for us to know what has been written about ourselves.

6. Strengthen your collection of the bibliographies of medicine for reasons that will be made plain in a few moments.

Given a medical library, however, there still remains the question of how best to take advantage of it. Some people blessed with parents who were in the habit of using books by referring to them to settle any question that came up at the dinner table, have had a head start so to speak, for, when young, they have unconsciously learnt by example. I firmly believe that those who were brought up in a house where books were not in evidence are handicapped from the very beginning, but this is overcome to some extent in colleges where everyone nowadays has to consult the works in the library, and also in medical schools where more use is made of the libraries than formerly. Nevertheless, I am certain that we should begin when we are children, ten years old or younger.

We are all very fortunate that we are doctors, for medical literature is so well indexed that our work in medical libraries is made much more easy than if we were studying almost any other subject. I shall not refer to any of the very old bibliographies that have appeared ever since the time of Conrad Gesner, the "father of bibliography", in the XVIth century, but, even with the danger of repeating what is well-known to you already, I shall begin with the *Index Medicus*, a subject list of books and journal articles, which came out in three series from 1879 to 1926, with one gap from 1900 to 1902 when its place was taken by the Parisian *Bibliographica Medica*. In 1927, the *Quarterly Cumulative Index*, published by the American Medical Association from 1916 to 1926, joined forces with the *Index Medicus* under the title of the *Quarterly Cumulative Index Medicus*. As you know, it is still being published by the American Medical Association four times a year, but the second part includes the entries for the first, and the fourth includes the third part, so that there are two volumes a year. You may readily see that to find the articles and books published on a subject, or the books written by a man, you would have to look up these in all the volumes of the *Index Medicus* which had

come out; and in the case of the *Quarterly Cumulative Index Medicus*, you would have to refer to two volumes for every year. The great John Shaw Billings, the centennial of whose birth is to be celebrated shortly, conceived the idea of the *Index Medicus*, and, fortunately, he also planned and brought out with Dr. Fletcher and Colonel Garrison, a still greater and more comprehensive work, the *Index Catalogue of the Surgeon General's Library*, which, beginning in 1880, had passed through three series by 1932. Its fourth series has begun with the issue of the first volume in 1936, and of the second volume in 1937. Each volume of the *Index Catalogue* covers one letter or more of the alphabet, and includes all the material appropriate to the volume, which was to be found in the Surgeon General's Library (now the Army Medical Library) at the time of going to press. It is an author and subject index in one alphabet, the books, reprints, and theses appearing under author, whilst under subject are to be found the books, theses, and titles of all magazine articles. The first series indexed all the old and new books in the library at the time, and also all the articles printed in the old magazines down from the time of their beginnings — think of that for a piece of work! The second series naturally added the old, or ancient, books which had come to the Library after the first series had been published, and also old journal articles if a file of the magazine had been acquired. Even the fourth series indexes under an author's name the old editions of his books that have been obtained since the corresponding volume of the third series was issued. Roughly speaking, each volume of the *Index Catalogue* includes twenty years of modern literature, the magazine articles having been taken from the entries in the *Index Medicus*. So, in attempting to see what has been written on the subject of pneumonia, since the beginning of time, one merely has to look up the volumes in the first, second, and third series of the *Index Catalogue* which list the writings on pneumonia, instead of many, many volumes of the *Index Medicus*. This is not quite true, for some ephemeral articles were dropped from the *Index Medicus* when the volumes of the *Index Catalogue* were compiled. Again, in connection with the third series of the *Index Catalogue*, one fact has to be borne in mind, namely, that in the volume Ge to Izzet Bey and later volumes, no magazine articles published

after the end of 1925 were included. In the volumes of the fourth series covering Ge to the end of the alphabet all the articles not included in the third series will be taken care of. For recent articles on subjects not dealt with in the first two volumes of the fourth series of the *Index Catalogue*, you must consult the volumes of the *Quarterly Cumulative Index Medicus*.

From what has just been said, if one wishes to write a medical paper — and it is always wise to be thorough — the proper way is to look over all the titles of books and articles on the subject listed in the volumes of the different series of the *Index Catalogue*, supplementing this by doing the same with the volumes of the *Quarterly Cumulative Index Medicus*. It is quite extraordinary what a historical perspective even this alone will give you. Besides, you will find that a number of aspects of the subject, which you have not dreamt of, have been discussed. Do not let anyone else look over these lists for you, or you will miss much that is sure to be of great value. I feel that I must repeat what I said once: "The greatest men I have ever known have written their own papers", and that includes doing the preparatory work. As you go through the lists, pick out the titles of the monographs or article which you wish to read — you will often find as authors men who you know are authorities. Do not forget to look at systems of medicine or surgery for the titles of their articles are not given systematically in the published indexes. Should your Library not possess all these books or magazines, ask to have them sent from the Army Medical Library. Of Billings it has been said: "There is no better float through posterity than to be the author of a good bibliography . . . the great *Index* will remain an enduring monument to his fame" (Osler).

There are other reasons why one should go to the Library than merely to write papers. Keep notes of little points which you wish to look up and use the catalogue of your own Library, the next time you go there, to help you to find books or articles which will aid you in answering these questions. Then to keep abreast of work that is being done, visit the Library regularly and look over the tables of contents of the new books and journals as they come in, and read what you wish. This manner of work — it might be called browsing — will be a source of great pleasure, as well as profit, to you. It was the method of

Osler who made it a habit at Baltimore to go to the Medical and Chirurgical Faculty of Maryland several times a week before dinner, after his consultations of the day were over — and he made notes consistently of what he had read. He remained humble all his life, learned as he was, always amongst the first to acknowledge what he owed to medical libraries, just like yours that bears the name of Walter R. Steiner, who, I am sure, is proud to call himself a pupil and disciple of William Osler.

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### OBSTETRICS IN OKLAHOMA

In the five rural counties covered by the Oklahoma Cooperative Health Unit frequently all that is done for a patient seeking prenatal care is to give her a superficial examination and some advice. Numerous mothers because of inability to pay a physician never see one before, during, or after childbirth, and others because of ignorance, superstition, or isolation receive little or no care. No less than 60 per cent of all confinements in the area, it has been estimated, are attended by untrained midwives or neighbors, or are unattended. The advantages of postnatal examinations and treatment are almost unknown to the women in this locality.—*The Child, Jan.*, 1938.

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### TREATMENT OF EXOPHTHALMIC GOITRE BY DEEP X-RAY

Poulton and Watt report a series of cases of exophthalmic goitre treated by deep X-ray in the Proceedings of the Royal Society of Medicine for February, 1938. In grave cases medical treatment is combined with radiation. The authors suggest a combination of surgery and radiation suitable to some cases. An operation of not too great an extent is first done and subsequent deep X-ray treatment is given if necessary. They consider deep-therapy radiation an efficient method for treatment of toxic goitre. It will act equally well whether the patient has been previously treated by ordinary X-rays or not; if there has been much of the latter there is a risk of telangiectasis. It also acts well with recurrences after operation and is not a bar to subsequent operation. As in many other diseases, it should work hand in hand with medicine and surgery, each the complement of the other.



# The Treatment of Late Syphilis

MAURICE J. STRAUSS, M.D., New Haven, Conn.

The general scheme of treatment of late Syphilis does not differ from that of early Syphilis. That is, the ideal form of treatment is the use of both Bismuth (Bismuth Salicylate in Oil) and one of the Arsenicals of proven reliability (Salvarsan, Neosalvarsan, or Mapharsen), in alternating courses, without rest periods.

However, it is in the treatment of late Syphilis that variations in this method are often necessary. One is not concerned with rendering the patient non-infectious. The chief objects of treatment are cure of the disease if possible, arrest of the condition if cure is not possible, and prevention of the unfortunate end results of untreated or improperly treated Syphilis. In short, we are concerned with the health and well being of the individual patient.

Because we do not have to worry about the patient's infectiousness to others, we have the advantage of being able to make haste slowly. Before instituting any treatment, everything possible about the patient's condition should be known. The examination should be a thorough physical examination including an X-ray of the heart and a lumbar puncture. Armed with the information so obtained, one is better able to treat the patient intelligently.

Two important questions arise, first, how much treatment and, second, what kind. The success or failure of one's treatment of late Syphilis lies in the answer to these questions. It is here that that intangible something called clinical judgment becomes of paramount importance.

The minimum treatment outlined for early Syphilis still holds but usually must be greatly exceeded. The Wassermann will probably not reverse promptly and treatment should be continued for at least six months or preferably one year after reversal in order to prevent relapses if possible. If active lesions are present, treatment must of course be continued until these have disappeared but in almost all cases this

occurs long before the minimum amount of treatment has been given. In the case of latent Syphilis, a positive blood Wassermann being the only evidence of the disease, the patient should be given treatment over a period of two to two and one-half years if the Wassermann remains positive. One is then justified in stopping treatment and following the patient by means of careful periodic physical examinations. If the complete physical examination referred to above has not previously been done, it should be done at this time in order to be certain that the patient does not have active but undiscovered lesions which require further treatment.

The question of what kind of treatment does not mean which individual drugs to use. The chief question is that of intensive or vigorous treatment versus conservative treatment. It is always well to bear in mind that a live dog is better than a dead lion. If one is treating a robust healthy young or middle aged individual, a scheme of treatment identical with that described for early Syphilis should be followed, always remembering that in late Syphilis such a course usually must be longer. But if the patient is over fifty or not in good physical condition or gives evidence of having cardiac Syphilis, the physician should temper his zeal with caution. Sufficient treatment should be given to relieve the symptoms that are present, but thought must be given to the fact that a complete cure is not always possible and also that intensive treatment may cause the patient more difficulty than the disease. Arrest of the condition and complete relief of symptoms can frequently be attained by means of Bismuth alone. It is probably a safe rule to treat all cardiac Syphilis in this way. It is in late Syphilis that the physician must use his clinical acumen, weigh the advantages of intensive treatment against the possible disadvantages, and plan the treatment of each individual case on its own merits; in short, treat the patient, not the disease.

# Treatment of Alcoholic Psychoses With Thiamin Chloride

(Synthetic Crystalline Vitamin B)\*

MICHAEL E. BRODSKY, M.D., Bridgeport, Conn.

For some years, I have been watching with interest the work of various investigators with Vitamin B Extract, and noticed that in cases of alcoholic polyneuritis with psychoses, that the psychotic element improved markedly.

My interest was further aroused when I was able to treat my own cases with Vitamin B Extract and later with the synthetic Vitamin B and was amazed to find that not only Polyneuritis but also the alcoholic psychoses seemed to improve under this treatment.

It seemed, therefore, reasonable to believe that normally the same Vitamin B complex was also present in the human brain cells and that the psychoses occurred due to the destruction of this Vitamin by alcohol and deficient diet. If this was true, then the patient should benefit materially from replacement of this Vitamin by oral ingestion or by intra-muscular injection. Oral administration having failed to give any satisfactory results, parenteral administration was tried.

It is true that every alcoholic who even drinks alcohol moderately every day seems to develop increased reflexes and loses some physical strength, lowers fatigue point, interferes with clarity of thought, impairs his own judgment, and capacity for mental work. His sharpness of memory and emotional stability are also impaired. There are in these cases marked fears and excitement and I feel that even small amounts taken daily cause a certain amount of disturbance in the psychic system of each individual.

On the other hand, our treatment was not directed at the acute alcoholic psychoses and acute delirium tremens primarily, since we felt that spinal taps and the ordinary method of treatment were sufficient in such cases to produce a good result.

We were surprised, however, to find that our surgical staff and our orthopedic staff were very quick in using Vitamin B Extract in such cases, since they felt that they cut the delirium short, particularly in post-operative cases. Since this acute treatment increased our problem, we divided the treatment into two sections:

1. Those of chronic alcoholic psychoses.
2. Of chronic alcoholism with acute manifestation treated with Vitamin B.

In the first section, the symptoms of chronic alcoholic psychoses are too well known to warrant a complete description and we will only cursorily run over some of the salient features which make the diagnosis.

All our chronic alcoholic psychoses treated were based upon a story of alcoholism over a considerable period of time with hallucinations, particularly of the auditory threatening type, fear, disorientation, and a duration of at least six weeks of the above condition. Emotional dullness, sometimes jealousy, speech defect, tremors, and often polyneuritis.

In all these conditions, there were also of course, such complications as Korsakoff's Psychoses and paranoid ideas which tended to confirm the diagnosis.

In all such cases the treatment was as follows: First, the removal if possible of alcohol; Secondly, injections daily of massive doses of Crystalline Vitamin B in the gluteal muscle, the dosage being anywhere from 500 to 2,000 units daily, and the administration of some such sedative as bromide, chloral and, in some cases, phenobarbital.

In all conditions we saw a very quick improvement in the patient and, within a period of weeks or months, an absolute cessation of all symptoms even though they had lasted for some time. It was noticed also that there was no recurrence of

\*Read before the Jewish Physicians Club, New Haven, Connecticut, December 29, 1937.



a desire for alcohol. This peculiarity was also noticed in acute alcoholic psychoses. The acute psychoses were treated with spinal drainage and daily hypodermic injections of Vitamin B into the gluteal muscles in small doses such as 300 to 500 units, and these also showed an improvement and a lack of desire to return to alcoholic habits. Most of these acute cases were not treated on our service, and I am not mentioning them except as a matter of interest. Altogether, we treated 36 cases of chronic alcoholic psychoses since the beginning of this year. There were approximately 14 cases of acute alcoholic psychoses also treated in various parts of St. Vincent's Hospital and at our city detention home at Hillside. We are pleased to report that in all our cases, we have had only one failure with 35 excellent results in chronic alcoholic psychoses. None of the cases referred to, have as yet begun to drink again, none have exhibited a desire for alcohol as yet. It is of course, too early to make a definite statement as to what the future will bring in these cases. However, a preliminary report, we feel, is indicated. We are submitting herewith a few of the typical cases which we have treated.

Case I. I. A. L., 63 years of age. Had been suffering from an alcoholic psychosis for 4 years. Six months previous to this treatment, was suffering from delusions of hearing and vision, and in the past few weeks has been under restraint both day and night and under constant supervision. Had made attacks on members of his family and his wife. He felt that people were persecuting him, particularly certain old friends of his who were watching him all the time and were trying to shoot him with a shot gun. He is very disturbed and restless and immediate institutionalization was advised. In the institution he did not improve, he was restless, delirious, did not cooperate at all with the treatment or the physicians in the institution, did not mix with the patients in any way, his ideas of persecution did not lessen and he became a very troublesome patient. He was then given the treatment as outlined above, 800 Sherman Units of Crystalline Vitamin B by injection in the gluteal muscles, daily for one week. At the end of this week, began to eat, began to talk, had stopped hallucinating, was mixing with the patients, became a social animal. He was then given a second week of treatment at the end of which he was discharged back to me. He was given bi-weekly injections for two more months and then discharged as cured. He has remained well since and has no desire for alcohol.

Case II. Mrs. J.D., 34 years of age, 1 child. This patient was referred to me on October 14, 1936, by another physician after she had been in a convulsive seizure following a drinking bout. At the time of our examination, she gave the following history: She had been drinking heavily for at least 6 years. About 6 months ago, began having delusions of persecution, had lost her ability

to sleep, felt faint, had developed convulsive seizures which had been becoming more and more aggravated. During these attacks, the patient lost consciousness for several minutes and had headaches for several hours thereafter. At no time, did she have any urination or defecation during these attacks. In the past few weeks, she has had as many as 3 spells per day, and has been in a stupor most of the time.

We found a definite polyneuritis of both legs, weight 133 pounds, an uncooperative patient who could not be controlled. Institutionalization was refused and we treated the patient under great difficulty from that time on until December 9, 1936. During this period, the patient had gained in weight (148 pounds), but was unable to relinquish her alcoholic habits, and we lost track of her until March 6, 1937, when she returned.

The findings at this time showed a marked polyneuritis, marked psychotic involvement, and it was at this second appearance that Vitamin B treatment was instituted. The patient refused to appear more than twice a week and so we gave her 2,000 units of Vitamin B twice weekly.

On June 1, 1937, the patient disappeared again from our care, but was markedly improved weighed 150 pounds at that time, and we felt that she was one of our marked failures with this treatment. However, the patient reappeared on November 3, 1937, in excellent health, somewhat thinner, the pain had disappeared around June, she was entirely cleared mentally, she had not been drinking since June, had no desire for alcohol, and came to discuss with me the problem of putting her husband on the same treatment she had received.

At this time, a thorough examination revealed no findings that could be attributed to alcohol or to the convulsive seizures from which she had suffered. She was therefore, taken out of the class of failures in which she had been placed and put in the class of successes.

We feel definitely in this case, that while she had no Vitamin B treatment, we were unable to make any impression upon the patient, but as soon as the Vitamin B treatment was resumed, the patient immediately effected a cure.

In 1935, I was first called in to see a patient by the name of A. J. B., at that time 57 years of age, who had been suffering from chronic alcoholism for some 18 years, and who had been in several serious psychotic states during that period of time. While under my care, he developed an acute alcoholic hallucinosis, had to give up his business, and was unmanageable for a great period of time. The family did not desire to send him to an institution, and we did the best we could with frequent outbreaks of alcoholism and acute hallucinations following such outbursts. These conditions lasted until January 12, 1937, when we saw the patient in an acute hallucinotic state having just attempted suicide, and feeling that his family and his sons, and his wife were set against him and he was hopeless, that everyone was against him, and that he himself was not worth saving. On January 20, 1937, we instituted treatment with Vitamin B, 2,000 units every day for 2 weeks, followed thereafter by 2,000 units twice weekly. The patient was discharged in April, 1937. Up until the writing of this paper, he has not touched alcohol, and the hallucinosis has never recurred. We feel therefore, that

where ordinary methods had failed in the past, we have actually succeeded with Vitamin B.

The acute hallucinosis following chronic alcoholism were episodes which we treated somewhat differently since they were not chronic problems. In these cases, we removed alcohol almost immediately, gave sedatives, but otherwise the treatment was much the same as far as Vitamin B Extract was concerned. We found that the primary factors that were involved were the necessity of curbing the patient's desire for alcohol. Otherwise, recoveries were uneventful. However, none of these patients were treated for long periods of time since most of them refused to subject themselves to the vigorous treatment that we demanded from them.

### Summary

Up until 1937, when Vitamin B Extract became available in large quantities, alcoholic psychoses were a serious and unmanageable problem. Since that time, we have been able to treat such conditions with a great deal of success. Out of 36 cases treated, 35 are apparently cured. It is too early as yet to state definitely whether the cure will be permanent. Further investigation is necessary and this paper is written as a preliminary report to give others an opportunity to investigate this treatment further. We are at present conducting series of experiments to determine whether the human brain contains Vitamin B normally and whether that content is destroyed by alcohol.



### MEDICAL SERVICE BY THE GOVERNMENT

Direct payment by government for medical service is not a solution, it is nothing more than a temporary expedient,— an expedient intensified in depression periods and eased during more prosperous times,— just as is direct payment of food, clothing and housing. What do we want medical practice and the medical profession to be like ten or twenty years from now? Who but us can or will maintain the independence of that ideal? Let us keep these thoughts in mind, then, while we are groping our way out of this labyrinth of perplexity.—*Westchester Med. Bull.*, April, 1938.

### MANY PHYSICIANS AND THEIR FAMILIES WILL "SEE AMERICA" EN ROUTE TO THE CONVENTION IN SAN FRANCISCO

Officials of this Society were pleased to learn from the American Express Company, Official Transportation Agents for the Convention tours, that they have already received a very excellent response from physicians and their families, which indicates that the San Francisco Convention will be a great success. It is recommended that members of this Society who intend to participate in the Convention apply at an early date to the American Express for their tour reservations, as this will assure them of receiving the type of Pullman accommodations they desire.

This is the first time that the physicians have been offered the facilities of de-luxe special trains visiting the scenic attractions of the west, at a very nominal all-expense cost from your home city. Traversing a route that contains many wonders, one's particular preferences are bound to be among them. For instance, the Indian Pueblo District with its remnants of an ancient civilization long vanished from this continent. The Grand Canyon offers its grandeur of scenic attractions. Southern California, its glowing, sunfilled cities and orange empires, Spanish Missions, Catalina Island and the Pacific rolling up to the edge of white sands. That is the route to San Francisco and the Convention.

Returning, there is a choice of two routes. One includes the charming cities of America's Northwest: Portland, Seattle, Victoria, Vancouver and the majestic Canadian Rockies and its resorts. Route Two winds through Yellowstone National Park and its world-famous geyser region, through Salt Lake City, and the scenic beauties of the Royal Gorge, Colorado Springs and the mile-high city, Denver.

That is but a rough outline of the itineraries offered to physicians planning to attend the Convention this June. These special train tours are restricted to physicians, their friends and families, and have been made possible through the united interest and support of 25 state medical societies which makes it possible to offer the tours on an economical, all-expense basis. This is an ideal opportunity to enjoy a wonderful vacation with your family and in the company of friends and colleagues in the Society and in other state Societies.



# The Hernia Problem<sup>\*</sup>

DAVID H. M. GILLESPIE, M.D., New York City

In offering a paper on this subject, one should apologize for presenting a paper on a subject, at once so well understood and dealing with so common a condition. However, commonplace and well digested as the subject may be, yet there are certain aspects of the problem that still puzzle me and, I dare say, give most surgeons anxious moments.

The importance of the subject lies not only in the widespread occurrence of hernia among people in all walks of life but also in the fact that, affecting the working ability and, therefore, the livelihood of such a large proportion of those afflicted, it becomes an economic as well as a surgical problem. This, the economic aspect of the matter, has been much emphasized since the passage of Workmen's Compensation Laws in 1913 or thereabouts.

Although many industries and utilities were careful to have prospective employees examined before employment previous to the passage of these laws, after their enactment, however, such examinations became a necessity and the employers' only protection against false claims. In our organization we have examined prospective employees for many years — long before Compensation Laws even were thought of — and we have always deemed the discovery of a hernia in a prospect an absolute bar to his employment. For the past fifteen or twenty years we have examined also employees who have been furloughed, those who have been off on account of illness or accident over a certain definite period and also periodically all employees in operating service; the interval between these last examinations varies from one to three years, depending upon the age of the employee. In these latter examinations the discovery of a hernia prompts us to advise an operation if the employee is within the proper age limits or otherwise the wearing of a satisfactory truss. We try to be very strict about these matters and our Claim Department usually co-operates with us.

A few words now concerning the etiology of *inguinal* hernia, the most common variety.

There are a few fundamental considerations of etiology that should be discussed in any paper of this type. When Compensation Laws were first enacted, this question of etiology of hernia became very important. Although these laws have been in force in our State over twenty years I really believe there is no unanimity of opinion among insurance carriers and surgeons as to the part played by trauma in the production of an inguinal hernia. It has been repeatedly held by the Compensation Commission in New York State that the three requisites of traumatic origin of a given hernia are:

1. Immediate discovery of a mass in the inguinal region.
2. Immediate onset of localized pain, and
3. Immediate disability.

With these premises I cannot always agree, for these reasons:—

1st, Many hernias of traumatic origin are not produced by a single trauma but by a succession of traumata until finally a mass becomes visible and palpable.

2nd, The occurrence of pain is a variable factor and often the patient experiences no pain but discovers at night, on undressing, that he has a lump in the groin, and then he usually remembers that he lifted something particularly heavy at a certain time during that day or had some unusual strain during that day.

3rd, The disability is not always immediate. Many patients come to me with the story that they have worked for days or weeks following the reception of the alleged injury.

These requirements have long since been modified by the Commission.

It is somewhat of a question in my mind and I feel that a great many surgeons share this doubt, whether an *indirect* inguinal hernia is ever caused by a *single* trauma. In order to prove this, of course, it would be necessary to demonstrate the presence or absence of a performed sac. We believe, with Hamilton Russell, the presence of a preformed sac to be the underlying causal factor of an indirect inguinal hernia. With the

<sup>\*</sup>Read before the New Haven Medical Association, February 2, 1938.

presence of the preformed sac, successive traumata producing sudden increases of intra abdominal pressure can open up this sac and produce a hernia.

As far as the production by trauma of a *direct* hernia is concerned it must be remembered that there are two important factors to be considered:

1. A congenital weakness of the muscular layer or layers of the abdominal wall, and
2. A result of the 1st — a stretching of the transversalis fascia which underlies and protects these layers.

These two factors cause a bellying out or even sac formation. But, here again, I believe it is only reasonable to consider that it must be a succession of such forces that gives rise to the hernia and not one single act.

As to the causative factors of other forms of hernia, they are all, with the exception of femoral hernia, caused by a weakness in the abdominal wall, either congenital, as in the epigastric and umbilical types, or acquired after operation — such as the post-operative ventral or incisional hernia. Considering the causation of the incisional or ventral hernia there are four factors in the problem:

1st, The manner in which the abdominal wall was closed at the time of the original operation;

2nd, Whether or not drainage was employed;

3rd, Whether or not there was damage to the nerve supply at the original operation; and

4th, Whether or not during the convalescence after the original operation there were complications such as great distension, nausea and vomiting or cough.

Any one of these factors or any combination of them may very well lay the foundation for the development of a post-operative ventral hernia.

The large femoral ring predisposes to the formation of a femoral hernia but there must be added the force of increased abdominal pressure occurring repeatedly.

Treatment may be considered under three headings:

- 1 — truss. 2 — injection. 3 — operation.

**Truss Treatment.** Truss treatment may be undertaken to produce a cure or it may be adopted as a palliative measure. In infancy the wearing of a truss, from the earliest day of discovery of a hernia, constantly for a period of six or seven years will, in most cases, result in a cure.

However, once in a while a case will be seen that gave this very history in infancy and early life and yet later on in young adult life a hernia developed — so that this procedure is by no means a cure-all. For palliative treatment a truss may be advisable in those patients who are beyond what is considered to be the safe operative period — in those patients whose habits of life and occupations are such that no unusual muscular effort is ever called for — or in those patients whose general condition, particularly the condition of the heart, blood vessels, kidneys and respiratory system, is such as to render it inadvisable to administer any form of anaesthetic, even local. Lastly, the truss may be worn in that class of patients intermediate in age between these two, where, from an economic standpoint, the loss of six to eight weeks in time could not be considered. These cases should always be considered as potential operative cases, simply waiting the proper opportunity. Then of course there are a certain number of patients who absolutely refuse to listen to operative proposals and something must be done to relieve them.

There are certain absolute contra-indications to the wearing of a truss.

1. Irreducibility — here the application of a truss is unthinkable.

2. Hernia associated with undescended testis — here the truss delays or rather prohibits the possibility of any further descent of the testis.

3. Cases in which there can not be fitted a truss which will absolutely hold the hernia back — here the inadequacy of the truss may lead to real danger.

Even in properly selected cases there are important objections to the truss treatment.

1. The discomfort and the interference with the patient's normal activities.

2. The necessity for larger, heavier and more elaborate trusses as time goes on.

3. In many instances the wearing of a truss causes a patient to put off an operation at a time when a cure is most apt to be permanent. At a later time, when conditions have changed, the patient is willing to be operated on, but the hernia has increased so much in size and the patient's general condition has changed so much for the worse and even the truss has lost its ability to properly control the hernia, that the outlook for a permanent cure is less bright than previously.



It must also be remembered that occasionally there may be seen a patient with a hernia, wearing a truss where the hernia has passed into a condition of incarceration or even strangulation. Here the truss must be at once discarded and an operation performed.

In dismissing the truss treatment I believe I am safe in saying that, excepting a certain number of infants, a truss almost never cures a hernia.

What advice then are we going to give our patients?

**In the first class**, for infants and young children, we should advise a thorough trial with truss treatment providing we can secure an efficient wearable truss. For the very young infant a wool truss is usually satisfactory. This is changed with every change of diaper. It forms a very efficient truss in most cases for infants. Should this fail, or as the infant grows, a cross body truss of fibrous material with a small pad over the ring may be substituted. Should both of these fail to hold the hernia the child should be operated on regardless of age. However, one or other of these simple trusses, if worn constantly up to the age of seven or eight, will usually bring about a cure.

**In the third class**, the aged, we have to consider the extent of the danger, disability and discomfort of the truss treatment in each particular case. To these factors must be added those pertaining to the general routine of life, general health and the character of the hernia. With the newer methods of anaesthesia and with our increased knowledge of after treatment we have been able to operate with impunity on cases well beyond the age limits formerly imposed and on cases formerly considered dangerous operative risks. We can, then, advise our elderly patient that there is a reasonable hope of the hernia being cured by operation with safety to the patient.

**In the second** or intermediate class, from seven to sixty, we find our largest and most important group, but here our problem in advising our patient is easiest. With very few exceptions there is really no excuse for such a patient being chained to a truss for life. Operation provides a cure in the vast majority of such cases. But to be perfectly fair to our patients we must admit to them that there is a possibility of failure. Let us examine the causes of failure. They may be divided into —

1. Causes beyond the control of the surgeon, and

2. Causes within his control.

The factors beyond the control of the surgeon are:

- a. The age of the patient — the chances of a cure diminishing as the age of the patient increases.

- b. The type of hernia — the *oblique inguinal* being the easiest to cure — the *direct inguinal* harder and the *recurrent inguinal* being the most difficult to cure. The *post-operative* and the *umbilical* fall into this last class.

- c. The condition of the patient's muscles and fascia.

- d. The occupation of the patient — naturally hernias in patients having laborious occupations are hardest to cure.

The factors within the control of the surgeon are:

- a. The type of operation selected and the care in its performance.

- b. The prevention of post-operative complications such as cough and distension.

- c. The avoidance of wound infection.

- d. The post-operative care — time spent in bed — time allowed for convalescence, etc.

**The Injection Treatment.** Over the past 250 years the injection treatment of hernia has bobbed up to public view every so often and, after a period of trial, has been laid away "in camphor" so to speak, to await its next call to service in a succeeding generation. Sad to relate many of these revivals have been in the hands of quacks. In the latest revival surgeons of good repute have taken up the problem from a scientific angle and much experimentation on animals has been done. This revival started in the West and Middle West and finally reached the Eastern Seaboard. The great argument for this treatment has been that the patient could continue his work while being treated and naturally the Industrial Surgeons were at once interested. At the Ruptured and Crippled we finally decided to give the method a fair trial under careful scientific auspices. We therefore selected cases showing all the various types of hernia. Careful records and follow-up notes were kept and in a few of these cases that were subsequently operated on, sections of the injected tissues were carefully excised and examined under the micro-

scope. The results of this study are recorded in two papers —

1. Burdick and Coley found (Ann. Surg. Vol. 106, No. 3) immediate results were gratifying but after a period of three to four months recurrences were noted in all but 11 cases out of approximately 65 patients with 90 hernias and in only 4 of these eleven have the patients gone without a truss for a year.

2. Higinbotham (J. Tenn. State Med. Assn., Vol. XXX, No. 10) working with Burdick and Coley (q.v.) comes to the same conclusions — suggesting that it may be a useful adjuvant to the palliative truss treatment.

Personally I cannot recommend the treatment by injection except in certain very selected cases — such as a patient completely out of the operative class by age, occupation or general condition, who has a very large hernia on which it is necessary to wear a very heavy truss. It may possibly be that this treatment may so diminish the size of the hernia that the patient may wear a very small truss provided he has no laborious work to do and even go without the truss, such as one of the 4 cases that we have cited above. This man is 84 years old now and has no occupation. He was examined by me very recently and has no recurrence. But in general, as a treatment to be recommended for the average hernia in the young or middle-aged patient, it is not to be considered.

**Operative Treatment.** For an inguinal hernia the method devised over forty years ago by Bassini still remains the method of choice among most surgeons. There are many modifications of this operation, some valuable, many not. Of late the question of suture material has occupied the minds and directed the efforts of all those dealing with this operation. The introduction of absorbable suture material such as chromic catgut and Kangaroo tendon was considered a valuable modification. Later on some form of fascial suture was proposed and adopted. The work of Gallie of Toronto led to the use of fascia lata and at the Ruputred and Crippled we employed this suture material in a large number of cases. The results of ten years work with this material form the subject of a paper by Burdick and others (Amer. Surg. Vol. 106 #103) in which 1500 such operations are analysed. The infection and recurrence rate, while better than under absorbable suture methods in cases se-

lected, yet was so discouraging that it was given up and in 1934 we began the use of silk.

So far we have not followed a sufficient number of cases for a sufficient period of time to be able to form a definite opinion but we are all very much encouraged by our results. The use of silk requires such meticulous care that it furnishes us a splendid schooling in technique

One of the very difficult problems in dealing with hernia is the cure of the *direct hernia*. Here the internal oblique or transversalis is often thin and frayed out and of little use. At the hospital we have been employing a modification devised by one of our staff, Dr. Walter F. Jones. In this step the transversalis fascia is dissected free from the internal oblique and transversalis muscles anteriorly and the peritoneum posteriorly for the entire length of the inner border of the canal and sutured separately to Poupart's ligament. The internal oblique and transversalis muscles are then sutured to the ligament over this line of sutures and in this way many cases of good firm closure have been secured. In some cases we have found it wiser *not* to open the direct sac, especially when it takes the form of a sessile bulge.

In attempting to cure the *ventral* or *umbilical* hernia, some form of overlapping of the fascia gives the best results. In the umbilical hernia we employ the Mayo or horizontal overlap, in ventral hernia the Blake or vertical method.

In the cure of *femoral* hernia the important factor is high ligation of the sac for it is impossible to entirely close the ring without constriction of the femoral vein. The high operation, or operation from within, is highly considered in some quarters.

In operating on a *recurrent* inguinal hernia it is of the greatest advantage to divide the cord. This procedure just about doubles the chance of cure and usually the consent of the patient is not hard to secure.

In conclusion then, the hernia problem is important because of its universality and because it involves so many peoples' working ability. It is a problem that involves careful study of each individual case in all its aspects and, finally, it is a problem which demands and profits by sound advice from the family physician as well as judgment and skill of the surgeon, who must realize that some of his cases will recur, but that in the long run, under proper auspices and with careful technique, he will cure the vast majority.



# Presidents' Proscenium

## Public Health Values as Seen by the President of A State Medical Association

W. L. LITTLE, M.D., Wesson, Mississippi  
President, Mississippi State Medical Association

This year I am celebrating my Golden Anniversary in the practice of medicine, and it gives me particular pleasure to review the advancements in my own profession. As does any physician, I hold in high esteem those works which prevent disease, prolong life, and promote health, and this phase of the profession, the public health movement, will be the subject of my remarks at this writing.

I feel a personal and pervasive zeal in the public health movement for I have viewed it not only from without but from within. Having been a member of the Board of Health from 1908 to 1912, and having been also health officer of Copiah County, I know thoroughly the magnitude of our public health problem and am aware of the long way which the people of Mississippi have come in better and healthier living, especially under the leadership of the present health officer, Dr. Felix J. Underwood.

I can well remember when I used to drive a horse and buggy on an 18 mile, half-day round and see on every call one or more cases of malaria or typhoid — sometimes both. Nowadays typhoid, like the horse and buggy, is seldom seen and malaria mortality has decreased from 1030 in 1914, the first year statistics were available, to 352 in 1936. However, these changes didn't just happen. Decreased deaths from typhoid were brought about by improved sanitation, inoculation, and the painstaking locating of carriers.

Deaths from malaria were reduced through the Board of Health's excellent program of drainage, the elimination of mosquito breeding places, and the screening and mosquito proofing of houses.

Mortality statistics on these two diseases for Copiah County alone are an indication of progress made against preventable disease. As county health officer, I reported 13 cases of typhoid fever in September, 1916, 8 in September, 1926; while the number of cases in all of 1936 was only 1. I reported 475 cases of malaria in September, 1916 and 128 in September, 1926. The total number from this disease in 1936 showed a new low of 6.

At the time I became a member of the Board of Health in 1908, tuberculosis claimed Mississippians yearly by the thousands. The number dying from this insidious disease as late as 1917 was 2743. Due to excellent control measures instituted by the Sanatorium and health workers throughout the state, this figure has been reduced more than half in twenty years. Nevertheless the disease is still a major health menace and the leading cause of death among the youth of the state. The increase in Sanatorium appropriations voted by this year's legislature will help in further reducing this enormous and needless waste of human life.

But to look now from specific causes of death and disease to the whole public health scene! The problem in 1877 when the State Board of Health was organized was largely one of sanitation and quarantine. With few exceptions, the germ causes of disease were unknown. The only way our forefathers could escape the great yellow fever epidemic in 1878 was to go to distant points not infected.

At the turn of the century, however, great strides were made in bacteriological discovery, and we entered the era of preventable disease

control. Due to the efforts of Pasteur, Walter Reed, Robert Koch, and others, the germ causes of many diseases were discovered. Communicable disease control gradually became the point of emphasis in the public health program, and for the past thirty years remarkable results have been achieved in this field.

Measles, scarlet fever, whooping cough, diphtheria, smallpox, typhoid, and malaria are giving way to the enlightened measures instituted in their control. Sanitation and education are measurably diminishing the emaciated victims of hookworm disease. The number of starved people broken out with the sores and rash of pellagra has been greatly reduced by improved knowledge of nutrition.

In fact, the whole public health picture has changed. Josephine Roche, Former Assistant Secretary of the U. S. Treasury in charge of Public Health, says this:

"Fifty years ago approximately 94 per cent of all mortality from disease was from acute illness, chiefly infections; today 75 per cent of all mortality from disease is from chronic illness. Three out of four of our deaths from disease are caused by 10 diseases. Listed according to the death rates for which they are responsible, they are: Heart disease, cancer, pneumonia and influenza, cerebral hemorrhage, nephritis, tuberculosis, diabetes, diarrhea and enteritis, appendicitis, and syphilis."

Once again there is a shift of emphasis in the public health needs which necessitates drastic changes of program.

Heart disease and cancer are the leading causes of death throughout the nation. Regarding the control of heart disease, Dr. Felix J. Underwood, State Health Officer, says this:

"The most urgent need now is the active assistance of the layman. Until public health and medicine have the full support of the citizens of the state, no reduction will be made in the high mortality rate from heart disease in Mississippi. A vast amount of educational work will be necessary on the part of the health forces, and early diagnosis, proper treatment, and heart clinics for the poor will be necessary on the part of the medical profession."

Practically the same may be said with reference to cancer. Already several states, including our neighbor, Georgia, have set up cancer control clinics to which the physicians of the state can

refer patients unable to secure diagnosis and treatment otherwise. A similar service should be available in Mississippi.

The setting up of more syphilis treatment centers is foremost in the immediate steps of the public health program. Already in operation in various parts of the state are eight clinics for the treatment of indigent cases of syphilis unable to obtain care otherwise. These centers are sponsored and manned by the local medical profession in cooperation with the full-time local health officer. It has been found that a clinic can care for approximately fifty cases a week at a cost per patient of about \$30 annually. Since the legislature this year has matched Federal funds for social hygiene, syphilis clinics for the indigent will be organized throughout the state within the next few months.

Realizing that no one in the underprivileged group suffers more than the expectant mother, aware that maternal and infant death rates have remained distressingly high during the past half century, physicians and health workers are now seeking adequate funds from both state and Federal sources to concentrate their efforts in this field. It is hoped that the next few years will see a marked improvement in the quality and quantity of infant and maternal care. It is anticipated that no mother unable to pay for hospital care and medical attention need unnecessarily risk her very life that a child — a future citizen of our great commonwealth — may be born.

Thus is pictured the great scope of our public health program and its value to the citizens of the state. It is shown how with sanitation as a start it has spread out in to ever-widening fields! How it is saving thousands of lives yearly through preventable disease control! How with the aid of private physicians it is at present looking forward to medical care among the underprivileged in groups where there is now enormous wastage of human life!

Such is Mississippi's public health movement of today. It has come a long way, and it is going faster each year. It is the duty of every Mississippian to follow the able leadership of Dr. Felix J. Underwood, State Health Officer, who has put our state foremost as one of the most progressive states in the country, making for himself an international reputation.



# Association of Connecticut Tumor Clinics

## Carcinoma of Uterine Fundus An Analysis of 31 Consecutive Cases\*

ANDREW F. RESNISKY, M.D., Hartford, Conn.

This analysis makes no attempt to cover the entire subject of cancer of the uterine fundus as this has been presented by others before this organization. The experiences to be related here concern 31 consecutive cases admitted to the Gynecological wards and private services of St. Francis Hospital from March 1932 to September 1937. In each case, the diagnosis of Carcinoma of the Uterine Fundus was substantiated by histological examination. This study provides a basis first for a review of certain points of general interest relative to the entire group and second for a discussion of some phases in their care.

Once it was said that "*When* a cancer is treated is more important than how it is treated," but I must add that our present knowledge demands that in addition to an early diagnosis, "*How* it shall be treated is equally important". No attempt will be made to provide you with five year end results because the small number of cases and the varied therapeutic methods employed by different surgeons make the results incomparable.

During this period in which 31 cases of fundus carcinoma were admitted, 56 cases of carcinoma of the cervix were seen, a ratio of 5 to 3 in favor of the cervix. There were also two cases of leiomyosarcoma.

Table I

Age Group	No. Cases	
30-39	2	
40-49	4	All patients white
50-59	14	Nulliparous - 16 (8 Unmarried)
60-69	9	Youngest - 38
70-79	2	Oldest - 72

Twenty-five of these patients were between 50-72 years, six were under 50. The youngest was 38 and the oldest 72 years of age. Two were under 40. All patients were white. Sixteen (16) were Nulliparae of whom 8 were unmarried.

In five patients whose average age was 42 there was no cessation of periodic bleeding before the onset of symptoms and these are regarded as a premenopausal group. Twenty-six patients whose average age was 58 years had definitely passed the menopause with their symptoms beginning from 3 months to 24 years thereafter. In two cases symptoms did not make their appearance until 20 and 24 years after the established menopause.

It will be noted that irregular uterine bleeding of some variety was by far the most frequent symptom presented by a majority of these patients. It varied anywhere from scanty spotting to frank hemorrhage. In the smaller or premenopausal group, metrorrhagia and menorrhagia were the same in frequency, whereas in the post-menopausal patients scanty "spotting", gradually increasing in amount, and frequency was very significant. In only two patients was there no irregular bleeding of any kind. One of these patients was found to have a large pelvic tumor, discovered during the course of a physical examination, and the other after complaining of pain for four and one-half ( $4\frac{1}{2}$ ) years was found also to have a large uterine myoma.

In the premenopausal group the duration of symptoms prior to treatment averaged 6 months, whereas in the post-menopausal group this was increased to 10 months. Nearly one-half of these patients did not seek advice for a period of 6

\*Read at the Eighth Meeting of the Association held at St. Francis Hospital, Hartford, February 24, 1938.

Table II

<i>Group</i>	<i>No. Cases</i>	<i>Av. Age</i>	<i>Bleeding</i>	<i>Av. Duration</i>	<i>Discharge</i>	<i>Pain</i>	<i>Wt. Loss</i>
Pre-Menopausal	5	42	2	6 months	1	3	1
Post-Menopausal	26	58	26	10 months	8	8	4

months to ten (10) months, a fact which would seem to verify the contention that public cancer education is much to be desired. In one case the symptoms were of one (1) day's duration when medical attention was sought, but this was procured only because the bleeding was so profuse that it alarmed the patient.

Of less importance was vaginal discharge, its occurrence being emphasized by nine (9) patients over periods of months but its diagnostic significance was of minor importance when compared with the predominant symptom of unusual bleeding. Pain likewise was of little importance. It was complained of by eleven (11) patients in the majority of whom it was associated with additional pelvic pathology. I do not believe that localized malignancy of the fundus, even though progressive, can initiate pain of diagnostic significance. Nevertheless, one's attention should be directed to the necessity of excluding carcinoma, especially in the post-menopausal group, even though pelvic pathology is discovered during the course of one's examination.

The well recognized association between uterine fibroids and carcinoma of the endometrium was borne out in this study, being noted in eleven (11) patients. Three patients in the premenopausal group had myomata which were such dominating lesions that their treatment was based on this incomplete diagnosis, the ac-

companying carcinoma not being suspected. As will be noted elsewhere these were part of the unsuspected cases in which a preliminary curettage would have provided a correct diagnosis.

Table IV  
Stage and Grading*A. C. S. Class*

1A — Limited to Fundus — 19

1B — Involving Adnexa — 8

1C — Vaginal Metastasis — 1

6A — Recurrence after Radiation — 3

*Histologic Grade*

Grade I — 5

Grade II — 18

Grade III — 3

Grade IV — 5

I have endeavored to classify the degree of involvement according to the grouping suggested by the American College of Surgeons. In addition, the pathologic slides were reviewed by Dr. Louis Hastings and the grading verified as correct in each case.

The presence of carcinoma was correctly suspected in 24 patients, and confirmed in 19 by a diagnostic curettage. There was no record of any biopsy in 12 cases and of these seven (7) were unsuspected because of associated pathology (namely uterine fibroids and one case of procidentia). In five cases (5) the condition was so far advanced that diagnostic material was ob-

Table III  
Associated Pathology

<i>Lesion</i>	<i>Pre-Menopause</i>	<i>Post-Menopause</i>	<i>Total</i>
Fibromyomata.....	3	8	11
Dermoid Cyst.....	1	1	2
Ovarian Cystoma.....	1	1	2
Procidentia.....	0	1	1
Salpingitis.....	1	0	1
Psychosis.....	0	1	1
Hypertensive Disease.....	0	5	5
Syphilis.....	0	1	1
Myosarcoma.....	0	1	1
Totals.....	6	19	25



Table V

Diagnosis and Treatment

Diagnosis	Patients	Diagnostic Curettage	No Diagnostic Curettage
Suspected	24	19	5
Unsuspected	7	0	7

tained from the bloody discharge during the course of manual examination and proper treatment instituted.

Table VI

No. Treated	30
No. Treatments	1
Surgery only	11
Pan-Hysterectomy	4
Sub-Total	7
Radiation only	2
Surgery and Radiation	17
Pan-Hysterectomy	11
Sub-Total	3
Vaginal Hysterectomy	1
Exploratory Lap	2

It is interesting to note that only one case received preliminary radiation followed later by Pan-Hysterectomy and Post-operative X-ray therapy. In the majority, a curettage preceded the Pan-Hysterectomy which was followed by deep X-ray therapy. Nearly one-third of the cases received surgery alone.

This extreme variation in the treatment may be accounted for, at least in part, by the fact that the 31 patients were treated by ten different physicians.

As stated, no attempt will be made to give complete figures on five year end results because of reasons previously mentioned. However, in order to complete this study I deemed it appropriate that some general statement be made as to the results to date.

Our social service department has traced the ward patients, whereas data on the private case was secured from their physicians. To date five (5) of the thirty-one (31) cases are dead, death ensuing within one year. In one case which happened to be a clinical type 1A and in which the prognosis was excellent, death resulted from Pneumococcic Meningitis, in another institution.

Conclusions

1. About 4 out of 5 women with carcinoma of the fundus developed the disease after the age of 50; in 3 out of 4 it was post-menopausal in onset.

2. Irregular uterine bleeding was the predominant symptom, whereas discharge and pain were of minor diagnostic significance.

3. The advisability of a diagnostic curettage is quite obvious. Errors seem particularly frequent when fibromyomata are present, whether in the pre or post-menopausal group. In fact, every case in which a hysterectomy is contemplated should be preceded by a diagnostic curettage.

4. Surgery alone has definite limitations, but should prove more effective when combined with radiation procedure; preoperative and/or post-operative depending on the grade and extent of the lesion and the physical status of the patient.

5. Certain cases must be treated by radiation alone.

6. This study confirms our impression of the need for and advantages of the present efforts of the State Cancer Committee to standardize the fundamentals of cancer diagnosis and therapy. At present the St. Francis Hospital Staff are on record as approving this effort and are prepared to co-operate with your therapy committee by using these standards as they may appear in the near future.

DISCUSSION

DR. L. P. James, (Hartford): In order to demonstrate that carcinoma of the fundus runs true to form in a small series of cases as well as in larger series I should like to compare Dr. Resnisky's series with those followed by larger clinics. In making the comparison I shall quote figures drawn from:

- 1. Haymen of Stockholm (1936-7 report).
- 2. Norris and Dunne (American Journal Obs. and Gyn., December, 1936).
- 3. Sackett and Ward (J. A. M. A., January, 1938).
- 4. Crossen's Operative Gynecology (1937 edition).

In table I, Dr. Resnisky found the age incidence to be 57. The Norris and Dunne series records the average age as 53. In table II, Dr. Resnisky demonstrated, as is obvious in any series of cases, that the majority occur after the menopause. Metrorrhagia was found to be the earliest and most predominant symptom in 83.8% of these cases as compared with 80.6% in the large series of Norris and Dunne. As to the duration of the bleeding, Dr. Resnisky found that in his premenopausal groups the time interval of the bleeding was six months and in the post-

menopausal group ten months. The corresponding Norris and Dunne figures for the duration of the bleeding are ten months premenopausal and seventeen months postmenopausal. It is noteworthy that 100% of Dr. Resnisky's 31 cases were in the hands of the profession ten months after the onset of symptoms. Norris and Dunne show that only 43% of their cases presented themselves for treatment prior to one year of the onset.

In table V it was noted that fibromyomata were associated with carcinoma of the fundus in 33.8% of the cases. The corresponding figure of the Norris and Dunne series is 34.9%.

The comparison of figures regarding diagnosis remain as follows:

	Dr. Resnisky	Norris & Dunne
Definite preoperative diagnosis	61%	67.9%
Suspected carcinoma of the fundus	17%	16.5%
Unsuspected carcinoma of the fundus	22%	15.5%

The diversified nature of the treatment is evident, and, although no 5 year figures can be drawn since some of the cases are too recent, there is a present survival rate of 83.9%. In the Norris and Dunne series of 1936, since the use of radium has become a large factor in the treatment, the five year survival rate is reported as 47.8%.

Heyman of Stockholm, the greatest exponent of the high 5 year survival rate of 78.3%. This is the best figure obtainable in the literature. Sackett and Ward of New York Women's Hospital present their 5 year survival rate as 45.5%. These men point out that surgical intervention is contraindicated in 47.5% of their cases due to coincidental disease.

That treatment of carcinoma of the fundus is uniform in the larger clinics is evident by comparing principles of therapy outlined by the above mentioned authorities, and it is apparent that this disease lends itself to standardization.

Dr. Resnisky's conclusions cannot be emphasized too strongly. Since practically 100% of Stage I and II fundal carcinoma cases are curable, great stress should be laid on earlier diagnosis and thorough treatment. Unquestionably the keynote of this procedure rests in better education of the profession. The infrequency of eclampsia in the past 5-10 years due to keener perception and evaluation of symptoms on the part of the profession offers a good analogy here. Points to be stressed to profession for earlier diagnosis of carcinoma of the fundus are:

1. Significance of late menopause. This embraces patients who continue to menstruate into the early 50's. These women usually show an endometrial hyperplasia which some pathologists regard as only one step removed from carcinoma. Such cases suggest investigation.

2. Functional bleeding of menopause. These patients, also regarded lightly at times, should be considered potentially carcinoma cases for the reason described above.

3. Routine pelvic examination when a physician encounters a woman beyond menopause. This is suggested to rule out obstruction to the normal drainage of the cervical canal and subsequent retained secretion giving rise to an endometritis. Such obstruction may be caused by atrophic changes, tumor, flexions, etc.

4. The technique of the Clark test and Ewing smear

to be put into the hands of physicians whose patients, for practical reasons, cannot be subjected to curettage.

5. The paramount importance of curettage of the endometrium in all suspected cases.

6. The routine examination of the endometrial cavity of all removed fibroid uteri by the surgeon at the time of operation. This should be done when there has been no preliminary curettage. Gross changes at this examination should suggest to surgeons to remove the stump of the cervix and the adnexa while the abdomen is still open.

7. A better check on advanced carcinoma cases by G. I. series and cystoscopy to eliminate useless and needless exploratory laparotomies which carry such a high mortality.

As has been pointed out by Dr. Resnisky, the procedures which make for better treatment of fundal carcinoma are:

1. Classification of these tumors into universal clinical stages and pathological groups.

2. Maximum doses of irradiation therapy with or without surgery.

3. Panhysterectomy and salpingo-oophorectomy whenever possible.

4. Universal standardization of irradiation and operative technique.

5. Improved statistics and follow-up care.

6. Most important of all, close cooperation between pathologist, radiologist, and gynecologist with frequent conferences to discuss results, and to restandardize and improve the treatment of carcinoma of the fundus uteri.



## GROUP HOSPITALIZATION IN PHILADELPHIA

The Hospital Council of Philadelphia and the Philadelphia County Medical Society after considerable controversy have agreed upon a plan for hospital insurance. The plan meets the essential requirements of both organizations. It is fundamentally a contract between the subscriber and a non-profit insurance corporation to be organized under the laws of Pennsylvania. It furnishes at a low cost hospital services for a period of twenty-one days. Benefits to the subscriber include those services ordinarily afforded semi-private patients by a hospital, such as bed and board, general nursing care, use of operating and delivery rooms, and medications and dressings. The plan further provides that the subscriber is indemnified up to stated amounts for certain professional services when rendered during the patient's stay in the hospital, viz., X-ray examinations, ordinary laboratory examinations, electrocardiographic examinations, basal metabolism tests, anesthesia and physical-therapy. —*Weekly Roster & Med. Dig.*, Feb. 5, 1938.



# Subcutaneous Oxygen Therapy<sup>\*†</sup>

WATT YEISER, M.D., Columbia, Tennessee

Oxygen is the most abundant of all the elements and is essential to all forms of life, yet strange to say, it was discovered only a little over one hundred fifty years ago by Joseph Priestly. During the past ten years a great amount of literature has appeared on oxygen therapy, especially of the concentration inhalation type, using tents and oxygen chambers. The average rental cost for an outfit of this kind is about twenty to twenty-five dollars per day. This item of cost puts it in the luxury class and as a rule well beyond the average family budget. In addition to this the cost of special nurses which are necessary makes it more prohibitive. Oxygen therapy, therefore, can be afforded only by the very wealthy.

For some unknown reason little attention has been given to the most economical and efficient method of oxygen therapy. I refer to subcutaneous oxygen therapy. Such a small amount of oxygen is used by this very efficient method that the cost of the gas is negligible.

Oxygen is readily diffused from one tissue to

another. It is taken up by the blood wherever available and distributed to all parts of the body.

## Methods of Administration

In the administration of oxygen subcutaneously it is necessary to have proper control and regulation of gas pressure and measurement of the amounts given. The machine adopted in Europe for this purpose is the one designed by Dr. Bayeaux of France.

## Subcutaneous vs. Inhalation

The reason that I prefer the subcutaneous method to the inhalation type is because of the fact that so many times the alveoli of the lung are obstructed and the patient does not get the oxygen by inhalation whereas with the subcutaneous method he cannot help but absorb it. In other words one feels sure that by the subcutaneous route it will reach its destination.

The primary purpose of oxygen therapy whether inhalation or subcutaneous is the combatting of anoxemia. The clinical importance of this has been recognized for many years and the time will soon come when the degree of anoxemia in certain diseases will be considered as regularly as the leucocyte count is now considered in appendicitis. The oxygen content of the blood is rarely of routine concern in the minds of the majority of the physicians because of the fact that knowledge of anoxemia is relatively newly acquired and certainly complex. The method of determining the oxygen saturation of the blood needs to be simplified. The most practical test for determination of anoxemia is by the injection of two or three hundred cc. of oxygen subcutaneously. If there is no anoxemia the oxygen remains unsorbed for a long while, whereas if anoxemia exists the oxygen is rapidly absorbed with marked relief of symptoms. Then the injections and amounts required can be repeated as necessary to relieve the condition. I have not used the oxygen tent but it is my information that it is given at a concentration of sixty per cent or higher. Common sense reasoning leads me to the conclusion that at this concentration it is not entirely harmless to an already inflamed lung tissue



\*Read before the Middle Tennessee Medical Association, Woodbury, November 12, 13, 1936.

†Printed by Permission of The Journal of The Tennessee Medical Association.

thereby nullifying the expected benefits. On direct communication with some of the best men that I have ever known, they have told me that the inhalation methods of treatment were very much overestimated.

Now going back to the subcutaneous method, the most remarkable feature is that injections of such small amounts of oxygen are so efficient. It seems unbelievable to one knowing that such large amounts of oxygen gas are required by the inhalation method, when you stop to consider that oxygen deficiency is really rather minute and can be easily supplied by the subcutaneous injection of the gas. The amount of deficiency is in proportion to the difference between the supply and the requirements which is usually a small amount. It is comparable to the old fable that it was "the last straw that broke the camel's back." This "last straw" so often comes in pneumonia cases when just a little help would carry them over.

#### **Dosage**

The average dose of oxygen when given subcutaneously, for the adult, is five hundred to one thousand c.c. and repeated as often as it is absorbed. This can be easily ascertained by the crepitation. The average pneumonia patient would be quite comfortable on one or two injections per day. It will be necessary to give it more often if there is much cyanosis or air hunger. The distress and anxiety of these poor patients is markedly relieved and they feel much easier until their oxygen has again been exhausted and their dyspnea begins to return. Then of course the injections should be repeated.

#### **Indications**

Oxygen therapy is indicated in all conditions which are complicated by symptoms of anoxemia or asphyxia. Remember it is compatible with any and all kinds of treatments. The following are some of the more important conditions in which subcutaneous oxygen is indicated:

Certain cases of pneumonia in which they have their first indication of cyanosis or dyspnea or rapid breathing; or in pneumonias with delayed resolution or in those with very little or no drainage; aftereffects of prolonged anesthesia; aftereffects of hemorrhage and anemia; asthmatic attacks; postoperative and other forms of shock; pulmonary tuberculosis; pulmonary edema, septicemia, toxemia, uremic convulsion, and whooping cough.

It is my belief that in the near future subcutaneous oxygen therapy will be regarded as important where required as fluids are today in the dehydrated patient. When the importance of the action of asphyxia on the body cells is more thoroughly appreciated, oxygen will be freely used. Unless one is burned alive, the tissues of the body always die of asphyxia. It is evidently asphyxia of the brain cells that causes the pneumonia patient to become unreasonable, fretful, and mentally confused or delirious. The relief of this mental condition is most merciful and invaluable and justifies the use of the subcutaneous oxygen when it arises.

Dr. Raymond reports that he has repeatedly seen the subcutaneous injection of oxygen produce veritable resurrections. Dr. Melchior of Germany reports having given more than twenty-five hundred injections without having had any complications; the amounts he reports having used are from one-half litre to as much as eight litres at one injection.

T. S. Kirk reports in a British medical journal of having given subcutaneous oxygen in two hundred cases without any complications whatever. He says that it is a perfectly safe procedure.

A vital feature of course in a case of pneumonia where there is respiratory distress is to secure rest, and permit these patients to be comfortable, thereby saving them from wearing themselves out struggling for breath. Oxygen is the sovereign remedy for any case of anoxemia and it is my opinion the subcutaneous route of giving it is the most effective as well as by far the most economical.

O. B. Simon reports having used it for fifty days, and the cost to him for this was not more than fifty cents. Compare this cost to an oxygen tent at \$20.00 per day, which would amount to \$1,000.00. This difference in cost perhaps explains why there has been no commercial exploiting of subcutaneous machines while the inhalation machines have been so widely advertised.

Advantages of the subcutaneous method:

1. Certainty of absorption and effects.
2. It is simple and easily given.
3. The simplicity of equipment which can be easily carried to any home.
4. Economy.



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## • Editorials •

### FIVE MINUTES OF TWELVE

The Connecticut State Medical Society convenes for its 146th annual session this year at Groton on June 1 and 2. Elsewhere in this issue will be found the program, complete except for a few minor additions to be made later. The Committee has made every effort to offer subjects of interest, presented by speakers of wide reputation and ability. The seven section meetings, together with those of the Hezekiah Beardsley Club and the Association of Medical Examiners, are open to all members of the State Society. An inspection trip to the U. S. Naval Submarine Base has been arranged and golf will be available to all.

Following a new plan, the annual meeting of the House of Delegates will be held one week earlier, on May 25, at New Haven. It is hoped that the bulk of the business of the House of Delegates may be disposed of at this one-day session, beginning at 10:30 A.M. It seems unnecessary to urge the delegates to be present. Medicine along with everything else in our present day life is passing through a critical period. History is being written so rapidly these days that it is difficult to realize that what existed yesterday has taken on a new appearance and a new meaning today, and what we possess and strive for today may be of little or no concern on the morrow. It is the opinion of most thinkers that this country, as well as the rest of the world, is due for a great upheaval in the next ten years to such an extent that we shall scarcely be able to recognize our present institutions, so great will be the changes in pattern and application. The medical profession faces problems of greater magnitude than it has hitherto known. Among these might be enumerated socialized medicine, adequate medical care for the indigent and low-income groups, cooperative medicine, training of men for the specialties, and preventive medicine on a vast scale.

This State Society has embarked searchingly upon a program of much wider scope than physicians in Connecticut have heretofore con-

templated. Such a program is imperative if we are to meet our responsibilities as physicians, working for a common goal. This is but the beginning and each member of the Society must assume his share of the burden. Now is the time to break up uninformed criticism, to arouse the indifferent and careless thinkers, and to clarify opinions for necessary action, when action must be taken.



### THE CARE OF THE MENTALLY DEFICIENT

Connecticut should be proud of the fact that the first attempt in this country to do something for the mentally deficient was made at the American School for the Deaf and Dumb at Hartford in 1818, when an effort was made in the way of giving instruction to several mentally deficient children, then called "idiots". A fair degree of improvement in their physical condition, habits and speech was obtained.

In the year 1854 the Connecticut Legislature appointed a Commission of three men — Daniel Dorchester, Dr. Henry M. Knight and Linus P. Brockett — to make an investigation of the care of "idiots" in other states and report to the next Legislature. In their report to the Legislature they estimated that there were 1000 idiots and imbeciles in Connecticut at that time, and they recommended the erection of an asylum for 100, so arranged that as more room was demanded additional wings could be added. The Legislature, however, took no action in the matter and in 1858 Dr. Henry M. Knight opened his home in Lakeville and took a few private patients. The State later sent children to him for care. From time to time additions were built and more cases were received.

At Dr. Henry M. Knight's death in 1881 the school was carried on by Dr. Robert Knight, a son, for a period of five years, and then Dr. George H. Knight, another son, who continued in charge until his death in October 1912. The State took over the school at Lakeville in 1913. The school was known as the "Connecticut School for Imbeciles" and was carried on by Mrs. George H. Knight and Dr. Robert Knight until February 2, 1914, when Dr. Charles T. LaMoure was placed in charge.

At this time the school consisted of three frame buildings, two of them three stories in

height, with a population of about three hundred children. As there were but six acres of land it was realized that a new site was necessary, and the Legislature of 1915 made an appropriation of \$200,000.00 and set aside a portion of the land owned by the Connecticut Colony for Epileptics at Mansfield as a site. A plan for an institution of 1000 was drawn up and buildings started. The name of the institution was changed at that time from the "Connecticut School for Imbeciles" to the "Connecticut Training School for Feeble-minded". In 1917 the Legislature combined the Connecticut Colony for Epileptics and the Connecticut Training School for Feeble-minded and called it "The Mansfield State Training School and Hospital". All the children were transferred from Lakeville to Mansfield in September 1918.

At the present time Mansfield has accommodations for 1200 children, all housed in brick buildings of fireproof construction. The site comprises an area of a thousand acres.

Educating and training a mental defective will never make him normal. Therefore, there are no recoveries from our schools for this class. Many of these children, however, can be trained to lead useful, happy lives in the community, but must always have careful supervision. A mentally defective child should be diagnosed at an early age and steps taken to provide special training as soon as possible. If special training is begun at an early age and continued, the child will not develop vicious or criminal habits and the term delinquent mental defective would become rare. If the school systems could provide special classes for all defectives in their communities, if there could be institutional care for defectives not suitable for the special classes, and if community supervision of all defectives not in schools or institutions could be provided, we would have many less criminals clogging our courts and filling our jails, reformatories and prisons. At the present time 25%-40% of the population of the correctional and penal institutions are classed as mentally defective.

A study of over 5000 histories at this school reveals the fact that there are many families with more than one member either at Mansfield or on the waiting list. These same families have been represented at Lakeville or Mansfield through the last three generations. The fact



that mental deficiency is inherited under certain circumstances must be fully recognized.

With but one institution, having a capacity of 1200, for the care of the mental defectives in Connecticut lack of room becomes a grave problem because of the many applications for admission. At the present time we have on our waiting list over 1400 children needing care. It is our custom to make an investigation of each applicant and to admit the most urgent case as soon as a vacancy occurs. As no mental defective recovers and the mortality is low, the only vacancies are those which occur when a child is paroled or dies. Since Connecticut has assumed the care of the mental defective it behooves the State to draw up a long time program for their care, training, and community control.

In conclusion, I quote from Dr. Henry M. Knight's report of May 1st, 1872, which today is as live a message as it was then: "The insane, the imbecile, and all classes of unfortunate humanity, perform their part in the Creator's plan of governing and developing the race by binding with cords of dependence, charity and love the sick to the healthy, the weak to the strong, those who cannot help themselves to those who are able to help themselves and others."

"I cannot help asking again if it must remain the settled policy of the friends of the imbecile, and of the State, that this small institution shall continue in its present condition and size to be the only provision for the wants of this entire class in Connecticut."



### THE NEW FOOD AND DRUG ACT

The Wheeler-Lea Act, approved by the President March 21, becomes effective on the expiration of sixty days. Under this Act the Federal Trade Commission will possess jurisdiction over the advertising of foods, drugs, diagnostic and therapeutic devices and cosmetics. Labeling of such products will remain under the jurisdiction of the Secretary of Agriculture. Offenders of the Act will be liable to fine and imprisonment only in event of proved danger to health or deliberate fraud. To prove danger to health or deliberate fraud is often very difficult and with provision for the right of appeal to the courts and the possibility of long drawn out civil suits the effectiveness of this Act may be delayed and even lost. It is not the time for the medical profession

to relax its vigil but it must continue to investigate and to protect the public as it has done heretofore.



### CHILD HEALTH DAY AND NATIONAL HOSPITAL DAY

The month of May includes two days set apart for recognition of two great fields in medical work, Child Health Day on May 1 and National Hospital Day on May 12. Although each of these days is designed to inform and educate the public, the medical profession would do well to recognize them as representing certain achievements of which it may well be proud.

On May 1 it is hoped that all communities will make a critical study of their maternal and child hygiene activities to see if they conform to accepted standards. Child hygiene is one of the most productive fields of public health endeavor and as such should receive our full cooperation.

National Hospital Day will find the doors of our hospitals, the work shops of the medical profession, wide open and inviting inspection. As we look with pride upon the advances made in hospital care during the past two decades we should not forget that this progress has brought new and larger obligations to us as a profession.



### NON-TRAUMATIC CYSTOSCOPY

Dr. J. Bayard Clark in the August 1, 1937 issue of the New York State Journal of Medicine presents his reasons why cystoscopy should be without trauma and practically without discomfort. Dr. Clark considers anesthesia rarely necessary in cystoscopy. He makes the observation that it would be preferable to have competent urological work instituted by the medical profession rather than have it demanded by the public.



### LEGAL CONTROL OF CHILDREN

Dr. Oliver T. Osborne, Emeritus Professor of Therapeutics at Yale School of Medicine, is the author of "Legal Control of Children", published in the Medical Record for March 16, 1938. Dr. Osborne presents seven objections to a bill for the control of children. A bill for such a law is being urged but as yet we understand it has not been proposed in Congress.

## OFFICIAL CRITERIA FOR APPROVAL OF PLANS TO PROVIDE MEDICAL EXPENSE INSURANCE

### Westchester County Medical Society

1. In accordance with the principles adopted by the County Medical Society on January 18, 1938, any such plan to be approved and endorsed by the County Medical Society must definitely provide for the effective control and supervision of the medical aspects and relationships of such plan by the County Medical Society.

2. The plan must be set up and operated on an essentially non-profit cooperative arrangement. Any surplus that may be realized from the operation of such a plan should be applicable to the extension of its services or the reduction of its premium or both, rather than being diverted into the private pocket of its promoters in the form of profit.

3. The sales representatives or agents engaged in soliciting subscribers should be paid on a salary basis rather than a commission basis, because of the inevitable tendency on the part of a sales representative to over-represent the benefits if his income depends upon commission on the volume of sales.

4. The sales propaganda and technique and all advertising and publicity issued should be censored and approved by the Medical Society.

5. The scale or schedule of reimbursement to be made to the subscriber for medical expenses incurred should not be characterized as fees with the implication that such reimbursement will in all cases cover a reasonable or liberal fee for the particular service. The subscriber must be clearly given to understand that he may frequently expect physicians to charge a fee higher than the amount of reimbursement, provided to the subscriber under the plan. All literature circulated to the laity and to the physician in this respect should, of course, be in complete agreement and produce identical impressions on both parties.

6. The administration of a successful and popular insurance plan of this type naturally engenders a growing degree of centralized control in the hands of its directors and these directors therefore should be eitherly directly representative of or clearly under the control of the organized medical profession.

7. Although it may be found difficult if not impossible legally or otherwise to limit the par-

ticipation in such a plan to persons in the lower-income groups who need such protection, nevertheless, this limitation should be applied if possible, or in any event the active solicitation of subscribers should be limited to those in low-income groups.

8. Reimbursement benefits should be made available, if possible, for illness treated in the patient's home as well as in the hospital, in order to avoid the inevitable tendency to over-use of hospitals which would accompany a plan designed to provide benefits for conditions treated only within the hospitals.—*Westchester Med. Bull.*, April, 1938.



### SOCIAL SECURITY

The Second Annual Report of the Social Security Board, 1937, has been released recently. Those interested in the insinuation of the Federal Government into medical service will obtain satisfaction, no doubt, from the notation that for Maternal and Child-Welfare Service the Federal Government spent during 1937 almost six million dollars in that field and that state or local funds to the amount of over four million additional dollars have been poured into this same hopper. Also that the United States Public Health Service utilized eight million dollars for the year 1936-1937 and will use another eight million for the year 1937-1938. In addition over one million dollars were used for scientific research and administration. The state and local funds are required to provide sums equal to 69.3 per cent of those advanced by the Federal Government. Offhand this seems like a whole lot of money. It is unlikely that these appropriations will ever be less since the facilities set up for administration will follow the rule governing all such projects. The burden on the taxpayer must necessarily increase and every effort should be made to familiarize these same taxpayers with the fact that all this comes out of their pockets and that they should determine for themselves whether after all it is worth all it costs.—*Weekly Roster & Med. Dig.*, Mar. 12, 1938.



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# CONNECTICUT MEDICAL EXAMINING BOARD

Thomas P. Murdock, M.D., Secretary

## Successful applicants at the March written and oral examinations

Philip H. Gates, New Haven Hospital, New Haven.

Gwilym A. Edwards, New Haven Hospital, New Haven.

Walter J. Duksa, 58 West St., Southington.

Martin H. Stein, New Haven Hospital, New Haven.

D. William Pasquariello, 2971 Main St., Bridgeport.

Paul L. Brooks, Washington Depot, Conn.

John G. Frothingham, 77 St. John Place, New Canaan.

Robert L. Pollard, 59 Savings St., Waterbury.

C. Norton Warner, North St., Litchfield.

Kenneth L. Grevatt, 220 Christopher St., Montclair, N. J.

Olga A. Little, Fairfield.

Grace E. Gillis, St. Vincent's Hospital, Bridgeport.

Paul L. Boisvert, 856 Howard Ave., New Haven.

William E. Soda, Bridgeport (143d Co., C. C. C., Charlemont, Mass.)

Michael J. Cardone, 113 Wentworth St., Bridgeport.

Fred Tirella, 132 North St., Hamden.

Raymond D. Markle, 1310 Baldwin St., Waterbury.

Eugene F. Labuz, 660 Main St., Palmer, Mass.

Louvane A. Fox, 17 Holmes Ave., Waterbury.

Leo M. Smith, Blachley Road, Noroton Hill, Stamford.

F. Alfred Hudon, 175 School St., Bristol.

Allan M. Ross, Westport San., Westport.

Daniel J. Sabia, 202 Stillwater Ave., Stamford.

Reginald Farrow, New Haven Hospital, New Haven.

John G. Lynn, IV, Stamford Hall, Stamford.

Samuel H. Cohn, 8 Mahl Ave., Hartford.

Louis W. Daley, 99 West Main St., New Britain.

Ralph E. Durkee, Hartford Hospital, Hartford.

Samuel J. Goldberg, 1411 Chapel St., New Haven

Fernand Girouard, Willimantic.

Harold J. Greenblatt, 14 Hart St., New Britain.

Gilbert W. Heublein, 184 Fern St., Hartford.

Norman Margolia, 352 Main St., Catskill, N. Y.

Robert R. Nesbit, 95 Anita St., New Haven.

Charles G. Paolillo, 250 Franklin St., New Haven

Roy C. Robison, Hartford Hospital, Hartford.

Lewis I. Sharp, 200 Retreat Ave., Hartford.

Morris Tager, 225 Orchard St., New Haven.

Benjamin V. White, Jr., 278 Waltham St., West Newton, Mass.

Michael S. Zeman, 296 No. Quaker Lane, Hartford.

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## COMING MEETINGS

American Association of Genito-Urinary Surgeons, Atlantic City, N. J., May 2-4.

American Association of Pathologists and Bacteriologists, Atlantic City, N. J., May 3-4.

American Association of the History of Medicine, Atlantic City, N. J., May 2.

American Gastro-Enterological Association, Atlantic City, N. J., May 2-3.

American Laryngological Association, Atlantic City, N. J., May 2-4.

American Neurological Association, Atlantic City, N. J., May 2-6.

American Orthopedic Association, Atlantic City, N. J., May 3-5.

American Society for Clinical Investigation, Atlantic City, N. J., May 2.

American Surgical Association, Atlantic City, N. J., May 2-4.

Congress of American Physicians and Surgeons, Atlantic City, N. J., May 3-4.

International Congress of Obstetrics and Gynecology, Amsterdam, Holland, May 4-8.

Medical Society of the State of New York, New York City, May 9-12.

New Hampshire Medical Society, Manchester, May 17-18.

Medical Society of New Jersey, Atlantic City, May 17-19.

Connecticut State Medical Society, Hotel Griswold, Groton, June 1-2.

Rhode Island Medical Society, Providence, June 1-2.

American Medical Association, San Francisco, June 13-17.

American Physicians' Art Association, First National Exhibition, San Francisco Museum of Art, San Francisco, June, 1938.

American Association of Industrial Physicians and Surgeons, Chicago, Ill., June 6-9.

Maine Medical Association, Malvern Hotel, Bar Harbor, June 26-28.

Tenth International Medical Congress for Psychotherapy, Balliol College, Oxford, England, July 29-August 2.

Southeastern Dermatological Association, Charlotte, N. C., September, 1938.

American College of Surgeons, New York City, October 17-21.

American Public Health Association, Kansas City, Mo., October 25-28.

American Urological Association, Southeastern Branch, Louisville, Ky., December 2-3.

# From the Secretary's Office

CREIGHTON BARKER, M.D.

258 Church Street

New Haven

## DELEGATES FROM THE CONNECTICUT STATE MEDICAL SOCIETY

### To the American Medical Association,

San Francisco, June 13-17, 1938

George Blumer, New Haven

Walter Steiner, Hartford

### To the Maine Medical Association,

Bar Harbor, June 26-28, 1938

Alfred C. Henderson, Stamford

Ralph A. McDonnell, New Haven

### To The Massachusetts Medical Society,

Boston, May 31-June 2, 1938

Philip G. McLellan, Hartford

Joseph A. LaPlume, Putnam

### To The New Hampshire Medical Society,

Manchester, May 17-18, 1938

Thacher W. Worthen, Hartford

Paul R. Felt, Middletown

### To The Medical Society of New Jersey,

Atlantic City, May 17-19, 1938

James R. Miller, Hartford

Oliver L. Stringfield, Stamford

### To The Medical Society of the State of New

York, New York City, May 13-17, 1938

Stanhope Bayne-Jones, New Haven

D. Chester Brown, Danbury

### To The Rhode Island Medical Society,

Providence, June 1-2, 1938

James D. McGaughey, Wallingford

George A. Elliott, Middletown

### To The Vermont State Medical Society,

Burlington, October, 1938

Not yet appointed

### To The Connecticut State Dental

Association, New Haven, May 4-5, 1938

Frederick N. Sperry, New Haven

### To The Connecticut State Hospital

Association, Meriden, May 26, 1938

(Tentative)

H. Bertram Lambert, Bridgeport

### To The Connecticut Pharmaceutical

Association, Groton, June 15-16, 1938

Arthur B. Dayton, New Haven

## DELEGATES FROM OTHER SOCIETIES TO THE ANNUAL MEETING,

JUNE 1-2, 1938

### From the Maine Medical Association

T. S. Moise, Bangor

### From The Massachusetts Medical Society

Clarence E. Burt, New Bedford

Theodore L. Story, Southbridge

### From The New Hampshire Medical Society

Earl J. Gage, Laconia

Osmon H. Hubbard, Keene

### From The Medical Society of New Jersey

Watson B. Morris, Springfield

Hilton S. Read, Ventnor

### From The Medical Society of the State of New York

Charles G. Heyd, New York City

Nathan B. Van Etten, New York City

### From The Rhode Island Medical Society

Linwood Johnson, Westerly

John W. Helfrich, Westerly

### From The Vermont State Medical Society

F. J. Hurley, Bennington

### From The Connecticut State Hospital Association

Wilmar M. Allen, Hartford



### From The Connecticut State Dental Association

John J. Meyers, Bridgeport  
William J. Murray, New London  
Clifford W. Vivian, New Britain

### From The Connecticut Pharmaceutical Association

Edward J. Murphy, Manchester

### From The Connecticut Public Health Association

Edward J. Godfrey, Waterbury

### Committee on Tumor Study

The Council has appointed the following additional members of the Society's Committee on Tumor Study: Dr. William F. Verdi, New Haven, Dr. Christopher J. McCormack, Hartford, Dr. Joseph H. Howard, Bridgeport.

### The War Record of The Connecticut State Medical Society

Shortly after the close of the World War a committee from the Society compiled and published an accurate and informative record of the services of members of the Society in the war. Copies of this record were distributed to all of the members of the Society at the time. There are still some unbound copies of this volume available and it may be that other members may wish to add them to their libraries. The cost of binding will be \$1.00 per volume and they may be purchased from this office.

### Commercial Exhibit

The Commercial Exhibit at the Annual Meeting this year promises to be an interesting one, arranged under the direction of Mr. Thomas R. Gardiner of New York. The list of exhibitors is published elsewhere in this issue.

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### THE WEAKLY POSITIVE ASCHHEIM-ZONDEK TEST

The following conclusions drawn by Tenney and Parker (N. E. J. of Med., March 31, 1938) are significant. After the first few weeks of pregnancy a weakly positive Aschheim-Zondek test indicates some abnormality in the pregnancy. A miscarriage following an unhealthy pregnancy is the commonest sequela. A weakly positive test with a clinical diagnosis of threatened miscarriage indicates a poor prognosis. Tubal pregnancy must always be considered as a diagnostic possibility with a weak test. A weakly positive test may be of as much value as a positive or negative one.

## Our Neighbors

### MAINE

President Wakefield of the Maine Medical Association in the April issue of that society's Journal pays a fitting tribute to the loyalty and intelligence of the nation's well-to-do class as found in the resorts of Maine and Florida. The term "idle rich" has been applied to this class by thoughtless people, a group which actually represent the best in culture and education in this country.

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### MASSACHUSETTS

A post graduate course for training Medical Department Reserve Officers in medico-military subjects will be held at the Harvard Medical School from June 1 to 14, inclusive. This course, organized with the approval of the War Department and of the Administrative Board of the Harvard Medical School Courses for Graduates, has been planned to afford clinical and didactic post graduate instruction in subjects which will be of practical value to Medical Reserve Officers in their daily practice and in training them for their emergency duties as army officers. The charges usually made for post graduate courses have been omitted by the University, and the only payment required will be the regular registration fee of \$5.00.

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### NEW YORK

A program of postgraduate study in syphilis is being conducted at the New York University College of Medicine from February 15 to June 15. The course is made possible by a grant from the United States Public Health Service through the New York State Department of Health and is intended primarily for physicians already working in State and local departments of health. The work is being done in the New York University College of Medicine, in the syphilis clinics and wards of Bellevue Hospital, and in the various laboratories and bureaus of the New York City Department of Health devoted to venereal-disease study.

Patients hospitalized under the group plan have realized rich cash savings, according to the New York State Journal of Medicine. In Syracuse these subscribers saved \$100,000, the Bronx members hospitalized in the past 2½ years saved \$240,000 in their bills, the ones in Queens and Long Island saved \$728,000, and in the entire state the members who went to hospitals saved \$5,000,000. The hospitals reckon that their income is greater under the plan than it was before. Already 750,000 New York State residents have enrolled in the last 2½ years in plans in Rochester, Buffalo, Albany, Geneva, Jamestown, Syracuse, Utica, Watertown and New York City.

One section of the Hall of Medical Science at the New York World's Fair in 1939 is to be devoted to hospitals and organized care of the sick, to show how many departments and persons are involved in service to an ailing individual. Demonstration of the financial side of the hospital is to be effected graphically by having the four legs of a hospital cot made of stacked silver dollars. An animated story of persons going through hospitalization, an operating room, the convalescent, the finished well product — all will be shown.

The United Hospital Fund had received contributions by March 1 of \$2,100,989, almost ten per cent more than last year.

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### NEW JERSEY

Dr. William G. Herrman, President of The Medical Society of New Jersey, was given a medal of honor by Rutgers University for his outstanding services to society in the field of medicine, and for his loyalty to his Alma Mater from which he graduated in 1912. The presentation was made on February 22 at the dinner which is a feature of the annual celebration of Alumni Day by the College. Dr. Robert Clothier, President of the University, presented the medal.

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**Philip Morris & Co. has something of interest to our readers — Page 19**

## - NEWS - *from County Associations*

### Fairfield

Dr. Nathaniel Selleck of Danbury died on March 13. He was senior member of the medical staff of the Danbury Hospital and for twenty years had been president of the Danbury Board of Education.

The joint County and local Medical Society meetings held at monthly intervals throughout the county during the fall and winter have been well attended.

Dr. Frank Turchik of Bridgeport, has been reappointed as a member of the Board of Health Commission, serving his third term. Dr. Turchik is the only physician on the Board and has been carefully upholding the medical standards, against occasional lay opposition.

The Health Officer of Bridgeport, Dr. Richard O'Brien Shea, has been reappointed for his third term of office.

Recently the Board passed a city regulation, requiring sterilization of all drinking glasses and dishes in taverns, restaurants, drug stores, etc. It is needless to say that preventive medicine is being given a boost by this carefully supervised ordinance.

Dr. Paul Harper, on the Pediatric Staff of the Bridgeport Hospital, has announced his wedding plans for April 30th. His bride-to-be is a well-known Bridgeport girl, Miss Esther Edwards.

### Hartford

Dr. Calvin H. Elliott, visiting obstetrician and gynecologist at the Hartford Hospital, died suddenly at Tucson, Arizona, March 29. Dr. Elliott had been in poor health for two years prior to his death.

Dr. LeVerne Holmes, medical examiner for Manchester and chief orthopedic surgeon at the Manchester Memorial Hospital, died on March 26 at the home of his daughter in Scarsdale, N. Y. Dr. Holmes had been attending a clinic of the American College of Surgeons in New York City.

Dr. James F. Kelly of Hartford died at St. Francis Hospital on April 3 as a result of injuries



sustained in a fall at his home a few hours previous.

Dr. James E. Carroll of Hartford was elected president of the Central Connecticut Colgate Alumni Association at a recent meeting of this association.

Dr. Timothy F. Brewer of Hartford has been elected a Fellow of the American College of Physicians. Dr. Brewer is cardiologist at St. Francis Hospital.

The annual meeting of the Hartford County Medical Association was held in Hartford on April 5. The following officers were elected: President, James R. Miller; Vice-President, Henry N. Costello; Secretary-Treasurer, Frank T. Oberg; member Board of Censors, Maurice T. Root; member Committee on Public Policy and Legislation, Benjamin B. Robbins; State Delegates (new), James M. Lynch, Peter J. Steincrohn, Edwin C. Higgins, Aaron P. Pratt, Charles T. Schechtman. Dr. Root, in a very interesting and timely paper, presented some of the problems of the medical practitioner of today. The guest speaker was Dr. Charles H. Goodrich, President of the Medical Society of the State of New York. His subject was, "The Philosophy and Certain Phases of Preventive Medicine."

#### New London

Dr. Charles Kirkman Stillman, 58, died at his home in Mystic on March 22. He retired from active practice immediately after the World War.

#### New Haven

Plans have been made public for a new \$600,000 infirmary, school and administration building for Undercliff Tuberculosis Sanatorium at Meriden.

Dr. Francis I. Nettleton, 63, health officer and former mayor of Shelton, died at his home on March 19.

Dr. Henry W. Ring, 81, a prominent eye and ear specialist, now retired, died at his home in New Haven on April 3. Dr. Ring was at one time president of the New York Ophthalmological Society.

On March 23, 1938, the first of a series of Public Health addresses sponsored by the Waterbury Medical Society, the City Health Department and other agencies, was presented at the Waterbury Medical Society building. Dr.

Charles E. Winslow spoke on "Evolution of Public Health." Dr. Joseph I. Linde of New Haven, Health Officer, and Dr. Edward J. Godfrey, Waterbury, Health Officer, also spoke at the meeting. The meeting was well attended. Plans have been made for other similar addresses open to the public on medical topics of interest during the spring months, and a new series will be started in the fall.

Dr. Gerardo Petrocelli of Waterbury, Connecticut, died on March 23, 1938.

Dr. Thomas M. Bull of Naugatuck, Connecticut, died in Florida on March 28, 1938. He was one of the oldest practicing physicians in Naugatuck and Waterbury. He was a Past President of the New Haven County Medical Society. For many years, he had limited his practice to dermatology.

A special meeting of the Yale Medical Society was held in the auditorium of the Sterling Hall of Medicine Thursday evening (March 24) at 8:30 o'clock, at which the speaker was Dr. Arvid Lindau, professor of general pathology and bacteriology at the University of Lund, Sweden. Dr. Lindau is one of the scientists who has come to the United States under the auspices of the American-Scandinavian Foundation for the Swedish Tercentenary to be held in June. While in New Haven Dr. and Mrs. Lindau were the guests of Professor Harvey Cushing. Dr. Lindau's address before the Yale Medical Society was on "Benign Lymphogranuloma."

At its regular monthly meeting held on Wednesday, April 13th at 8:30 P.M., in the Sterling Hall of Medicine, the Yale Medical Society was addressed by Dr. Wilder Penfield, Director, Montreal Neurological Institute, on "Circulatory Changes in the Epileptic Brain."

The second meeting of the New Haven Medical Society in March was addressed by Dr. T. T. Mackie of New York, on "The Mechanism and Management of Chronic Ulcerative Colitis." Preceding the address Dr. I. Blodinger of New Haven presented case reports illustrating the Injection Treatment of Hernia.

At its first April meeting held on April 6th at 8:45 P.M., the New Haven Medical Association voted to amend its Articles of the Association as follows:

First: To amend Article 11 of the Articles of Association so as to read as follows:

The object and purpose for which it is constituted

is to advance the cause of medical science generally and in all of its branches; to encourage study, investigation and education in the fields of medicine, surgery, hygiene and public health; to establish the practice of medicine and surgery in the City of New Haven upon a high professional plane; to devise and carry into effect measures for the mutual improvement of the members of said Association; and to promote good understanding and harmonious intercourse between them.

Second: To amend the Articles of Association by adding thereto and including therein a new article to be known as Article V, to read as follows:

All of the property and funds of the corporation shall be used exclusively for carrying out the purpose and object mentioned in Article 11 hereof and no director, officer, member or employee thereof shall in any way or at any time, receive any part of the net earnings, or receipts, or any pecuniary profits from the conduct or operations of the corporation except reasonable compensation for services in effecting its purpose. In the event of the liquidation or dissolution of the corporation, all of its net assets, real, personal and mixed, shall be turned over to the Treasurer of the State of Connecticut, to be invested and reinvested by him and to be held as a special fund, both income and principal in whole or in part to be used for such scientific charitable or educational purposes of the State as the then Governor of Connecticut, or his successors in office, may from time to time, direct.

The Association also voted to subscribe as a group to the Plan for Hospital Care, Inc., in order to make the benefits of this organization available to the Association's individual members. The paper of the evening at this meeting was by Dr. Henry Bugbee of New York, on "Clinical Aspects of Calculous Diseases of the Genito-Urinary Tract."

The second April meeting of the New Haven Medical Association was held on April 20th at 8:45 in the Association's rooms. Dr. Arthur Krida of New York presented a paper on "Treatment of Fracture of the Hip."

Dr. Hamilton Anderson, member of the American Medical Association's Council on Medical Education and Hospitals, visited New Haven early in April for a survey of post-graduate educational opportunities available to physicians of the state.

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## • OBITUARIES •

### HARRIS FENTON BROWNLEE, M.D.

1866 - 1937

In the death of Harris Fenton Brownlee, for nearly a half century one of the leading surgeons of Danbury, the medical profession suffered a profound loss. Actively engaged in the practice of his profession until three years ago, he was forced by ill health to retire. He was one of the ablest men of his time, and at the time of his retirement gave up a large and successful practice and abandoned a career in which he had obtained distinction.

Dr. Brownlee was a very outstanding man in every way. He was possessed of a keen mind. He had a tremendous interest in medicine and especially surgery and urology. His work was outstanding, especially in abdominal surgery, gynecology and orthopedics. He possessed all the attributes of a good surgeon and his judgment was remarkable. He always admired good workmanship, even in professions and trades far removed from his own, and would not tolerate men around him who did not do good work. He was an inspiration to younger men, and always encouraged them and gave them aid when in need of it.

Always a student, Dr. Brownlee continued to improve his work constantly and studied abroad on three different occasions, in Vienna, Prague and Berlin. He also made several trips to the Mayo and Crile Clinics. In the later years of his life Dr. Brownlee became especially interested in urology. He established a department of urology at the Danbury Hospital, and equipped a splendid urological room, which is a lasting memorial to him. Under his direction this department of the hospital obtained considerable prominence and this service became a very active one.

Dr. Brownlee was born in Lawyersville, N. Y., in 1866. His father was James Brownlee, a veteran of the Civil War. His mother, Mary J. Stryker was a descendant of the Bouck and Vrooman families, who came to this country in the eighteenth century from Lorraine. She was



a niece of William B. Bouch, who was elected Governor of New York State in 1842.

Dr. Brownlee is survived by his wife, the former Adelaide Dennis, and by two daughters, Mrs. C. Edward Grafmueller of Scarsdale, New York, and Miss Adelaide Brownlee.

He was graduated from the College of Physicians and Surgeons, New York, in 1888, and spent the following two years as resident physician at St. John's Riverside Hospital, Yonkers, New York, and came to Danbury in 1890 to establish a practice. He was very instrumental in elevating the Danbury Hospital to its present position. Dr. Brownlee was a Fellow of the American College of Surgeons, a member of the American Medical Association, of the New York Academy of Medicine, The Connecticut State Medical and New England Urological Societies.

In civic affairs Dr. Brownlee was, for a number of years, a member of the Danbury town school committee, resigning in 1927, after having performed a signal service in relation to the building of the new high school. It was through his efforts that the extensive plot on White Street was envisioned as the ideal site for a modern high school, with room for an athletic field.

In Dr. Brownlee was exemplified the highest type of man. His striking personal appearance, his keen intellect, his pleasing manner, his ability to see both sides of a question, and the ethics of his profession and of life — all made an example for the younger men to strive for. To me, it is a very great source of pleasure to have been associated with him. Surely he was beloved and honored by all who knew him.

William M. Stahl, M.D.



### SAMUEL PIERSON, M.D.

1858 - 1937

Dr. Samuel Pierson, dean of the Stamford medical profession and one of the city's outstanding citizens, died April 22, 1937, at 10:15 P.M., at the Stamford Hospital, where he had been a patient since last November 13th. He was in his eightieth year.

A practicing physician and surgeon in this city for more than a half century, chief of staff at the Stamford Hospital, a fellow of the American College of Surgeons, and a civic leader who associates said was indefatigable in the many community enterprises in which he was interested.

Dr. Pierson died from the infirmities of age, complicated by a heart condition.

Dr. Pierson was born in Morristown, N. J., March 9, 1858, a son of Edward Pierson and Anna Sayre Pierson, collateral descendant of Abraham Pierson, who came from England in 1600 and was one of the founders of Yale College.

He was educated at Morris Academy, Morristown, N. J., and was later graduated from the College of Physicians and Surgeons (now part of Columbia University) with the degree of M.D. in 1881. He served over two years as an interne in the New York City Hospital and Chamber Street Hospital.

Coming to Stamford in 1884, Dr. Pierson began practice here in that year. On October 14, 1885, he married Carrie B. Norris of Boonton, N. J., who died in Stamford, September 20, 1920.

Dr. Pierson served from 1930 to 1935 as a member of the City Board of Finance. He was a member of the Presbyterian Church, serving as an elder. He was president and director of the Young Men's Christian Association, a director of the Stamford Hospital and the Family Welfare Society of Stamford. He was chairman of the board and director of the Stamford Trust Co., president and director of the Western Connecticut Title and Mortgage Co., and a director of the Stamford Gas and Electric Co. He was a member of the Woodway Club and the former Suburban Club.

Dr. Pierson's presidency of the Y. M. C. A. extended over a period of nearly 30 years. He was instrumental in securing funds to erect the present building of the association on Atlantic Street. He was also active in securing contributions for the present buildings of the Stamford Hospital.

Surviving are three sons, Samuel N. Pierson of Stamford, Attorney Norris E. Pierson of Darien and Dr. Richard N. Pierson of New York; a brother, Philander B. Pierson, and a sister, Laura A. Pierson, both of Morristown, N. J.

Dr. Pierson was a fellow of the American College of Surgeons.

He was a member of the American Medical Association, the American Surgical Association, the Connecticut State Medical Society, the Fairfield County Medical Association and the Stamford Medical Society.

Upon the completion of 50 years in the practice of medicine Dr. Pierson prepared an essay

covering a half century of progress of the medical profession. It was presented at a special meeting of the Stamford Medical Association, June 24, 1931.

In it he recounted the comparatively simple requirements for a student of medicine in 1879, his early days as a young physician in Stamford before the turn of the century, the progress of medical science and methods during these hard years, the triumphs over such diseases as syphilis, malaria, typhoid, diphtheria, tetanus, diabetes, yellow fever, smallpox, and scarlet fever.

"On the completion of my college course," Dr. Pierson said in his essay, "I secured a place in the City and Maternity Hospital, New York, and spent a year and a half on the island with very great benefit and pleasure. Over there the attendance of the visiting physicians and surgeons was infrequent, so that the staff had full swing to work out problems in their own way.

"At the completion of 18 months at the City and Maternity Hospital, I secured a short service at the Chamber Street Hospital, a branch of the New York Hospital. The building was an old engine house, but the service was very active, all the accidents and police cases of the downtown district. There was real excitement in riding the old horse-drawn ambulance at breakneck speed to pick up in the slums a drunk with a broken head or leg, or some badly mangled stevedore. The victims were frequently in fighting mood, and then the ever ready policeman would come back with us, sitting on the victims."

Dr. Pierson decided to hang out his shingle in Stamford in 1884. "My first year," he continued "afforded plenty of time for rest, study and meditation, and the total financial result was just two hundred and four dollars plus some doubtful accounts. The years since have shown some increase of receipts."

During the 35 years of their married life, Dr. and Mrs. Pierson traveled considerably, covering all of this country, Mexico, and a great part of Europe and the East.

Dr. Pierson had a heart for his patients. He rendered them services that were above and beyond the obligations of his profession. There was nothing perfunctory in his service. In character and in conscientious devotion to the medical science, he was beyond reproach, and his intimates would affirm that he was beyond criticism.

He combined with twofold energy the avocations of the general practitioner and those of the surgeon. A greater regard for his own health would have counseled him to have curtailed his practice, but men of his antecedents and of his triumphs are slow to give up any stronghold which they obtain in the realms of success. And he would have counted it little short of lack of loyalty for his beloved profession had he refused to respond to the many calls that were made upon his time and his strength. He was faithful to his patients at the expense of his own health.

The possessor of a tongue that never uttered an unclean or profane word, he was pious without hypocrisy, virtuous without austerity, and beneficent without ostentation. He was a doer, and a doer of good works that will live long after him and make his memory one to be cherished.

He approached all the problems of the Stamford Hospital as Dean of the Staff with a spirit that apparently was to continue forever. But time took its toll and he passed quietly to his reward. We, who were so long associated with him, realize that it will be very difficult to fill his place.

John J. Cloonan, M.D.

## • Quarto Notes •

### MacLEOD'S PHYSIOLOGY IN MODERN MEDICINE

Pp. 1051 Edited by Phillip Bard Eighth Edit.  
St. Louis C. V. Mosby Co. 1938

A short time before the death of J. J. R. MacLeod the seventh edition of the work was published in 1935. The present edition under the leadership of Professor Phillip Bard of Johns Hopkins is composed of the contributions of nine individuals representing a notable list of investigators in the various fields of physiology. The original purpose of the work which was "to serve as a guide to the clinical application of physiology and biochemistry" was later extended by the author to be used as a textbook of physiology for students. The result in the latest volume is the production of a most valuable work which should interest students and clinicians alike. With regard to the interests of the latter it is obvious that it is only by having recourse to some such work that familiarity with the newer advances in physiology is possible. The present volume serves that purpose in an admirable and praiseworthy manner.

Herbert Thoms



## INTRODUCTION TO DERMATOLOGY

by Richard L. Sutton, M.D., Sc.D., LL.D., F.R.C.S.  
(Edin)

Professor of Dermatology  
University of Kansas School of Medicine  
and

Richard L. Sutton, Jr., A.M., M.D., L.R.C.P. (Edin)  
Instructor in Dermatology

University of Kansas School of Medicine  
Third Edition 666 Pages

St. Louis C. V. Mosby Co. 1937

As might be expected this third edition shows much advance and improvement over the previous edition. The authors may be depended upon to keep abreast of the recent great progress being made in investigative dermatology as well as its practical application. The authors are a rare combination of father and son, the former a prolific writer, an experienced teacher and for years an outstanding practicing specialist in his field, the latter a well trained ambitious young man of great ingenuity and perception. The resulting work, therefore, shows good planning and well balanced material.

Notable is the condensation of irrelevant material, a long needed adjustment and revision of classification, and inclusion of newly isolated dermatoses. Poorly classified diseases have been identified if possible and headed appropriately under their origin as bacterial, fungi, metabolic, endocrine and neurogenic. This is a result of the recent tremendous advance in investigative dermatology.

A large number of excellent, new, descriptive illustrations have been added.

The therapeutic sections have been corrected, improved, and include all recent suggestions, some of which have not been even thoroughly tried, but on the whole the therapy is very broad and suggestive. The therapy of streptococcic diseases includes the use of sulfanilamide and that of syphilis the detailed standardization of treatment as recommended by the National Committee on Syphilis.

If there are corrections they are few and minor. It is noted that the authors still suggest sulpharsphenamine which many men have discarded because of the greater danger of dermatitis than from neo- or old arsphenamine. Perhaps they do not have the unsatisfactory results.

This book is well composed, concise, well illustrated and is excellent for first hand reference for all practitioners. If it is kept on hand it should prove quite valuable.

E. M. Standish



## MEDICAL EXPERT TESTIMONY

In the New York Law Journal of February 9, John Kirkland Clark advocates setting up a panel of experts whose qualifications have been established and confirmed by organized medicine, this panel to be placed at the disposition of the presiding judge. The legal profession apparently is willing to cooperate with organized medicine in getting rid of a situation existing in court trials and "obnoxious to the courts, to the bar, and also to the medical profession."—*N. Y. State Jour. Med.*, April 1, 1938.

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Our institution here on the outskirts of Boston in Middlesex Fells Reservation, has made education the theme of our Hospital Day programs. We believe that it is the function of the modern medical institution, not only to treat those who come to them for care, but to educate the public in ways and means to preserve health.

Last year we were able to so publicize our activities that the Hospital Day Committee of the American Hospital Association awarded us the Parke, Davis trophy for the best Hospital Day Publicity Program of all hospitals in America.

This year we are again attempting to present such an educational program that the thousands of visitors who come here on that day will go away feeling that they have a fairly adequate idea of what the modern hospital can do for them in case of sickness, and also with a somewhat intelligent conception of how to maintain their health.

Our program for the day follows:

1. Special Program — May 12th — 2:00 to 5:00 P.M.
2. Committee:
  - Paul R. Cone, Chairman (Director of Health Extension Service)
  - Mrs. Wells A. Ruble (Social Hostess)
  - Mrs. Mattie B. Edgerton (Dean of Women for School of Nursing)
  - Howard A. Munson (Purchasing Agent)
  - Paul L. Baker (Credit Manager)
3. Band Music:
  - Band not yet selected but probably High School Band in uniform and drill on front lawn
4. Prominent Speaker:
  - Not yet selected, but prominent state official
5. Boy Scout Troup helping with Parking
6. May 12th, Morning Chapel Program on front lawn

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9. Gym Exhibits:
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  - b. Portable X-ray on accident cases
  - c. Portable diathermy on pneumonia cases
  - d. Deep therapy lamp for treating surgical wound
  - e. Balkan frame supporting traction for fractured leg
  - f. Metabolism apparatus in use
  - g. Electrocardiograph in use
  - h. Oxygen tent for pneumonia cases
  - i. Croup tent for bronchitis patients
  - j. Hydrotherapy truck for bed treatments
  - k. Health Literature booth — Metropolitan Life & John Hancock
10. Dietetic Booth
11. Tree planting in memory of Mathew O. Foley, founder of National Hospital Day
12. Strength Tests and Equipment from Boston University — McDonald
13. First Aid demonstration by local school children
14. Awarding of prize to nurse exhibiting best health record last year
15. Local Police Department cooperating in handling traffic
16. Courtesy Staff Banquet (105 physicians on staff)

Of course the above program will be supplemented by talks in churches, clubs and public gatherings, radio talks, newspaper publicity, postcard and letter invitations, posters and stickers as provided by the American Hospital Association, movie trailers and periodicals.

If all the hospitals in our land put forth a concerted effort to enlighten the public that day in that which the hospital is able to do for them, it would be a mighty factor in breaking down any prejudice or misunderstanding that might be existing in their communities.

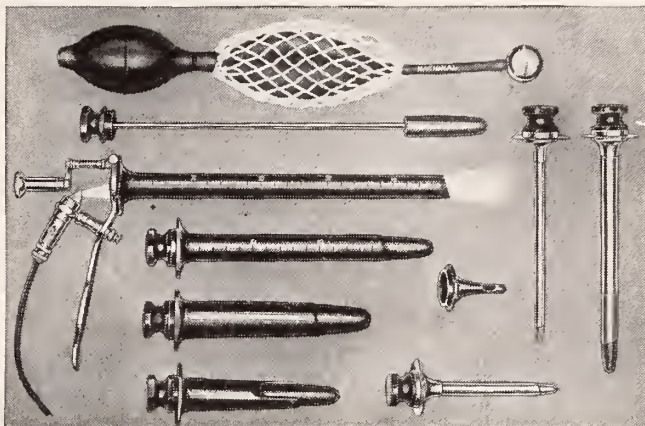


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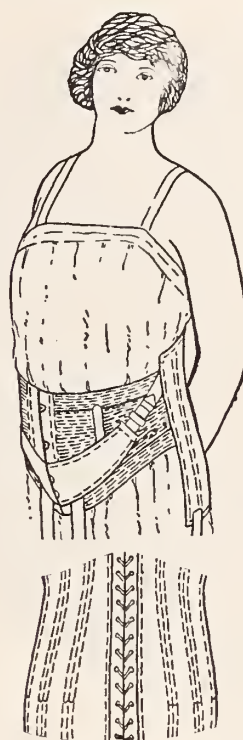
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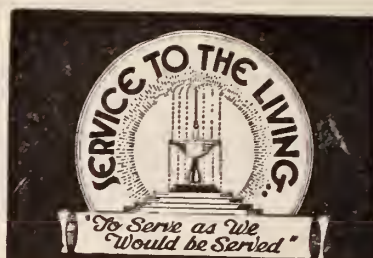
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Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3  
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

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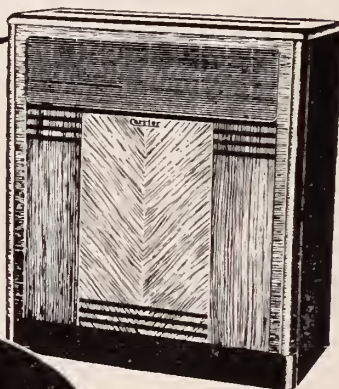
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Owned and Published Monthly by  
THE CONNECTICUT STATE MEDICAL SOCIETY

Editor-in-Chief - STANLEY B. WELD, M.D.,  
179 Allyn Street, Hartford, Connecticut

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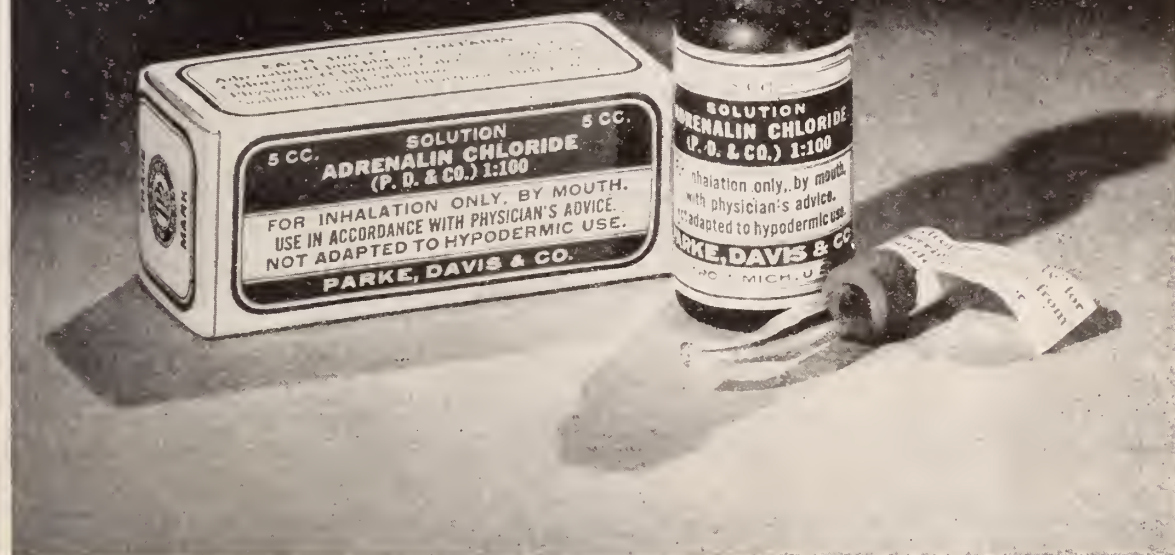
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# JOURNAL of The Connecticut State Medical Society

VOL. II.

JUNE, 1938

No. 6

## Comments on Coronary Artery Disease with Especial Reference to Prognosis\*

LOUIS H. NAHUM, M.D., New Haven, Conn.

The heart can do its work adequately only if it receives, through the coronary arteries, a sufficient amount of blood for its metabolic needs. It is important to note that the normal heart is endowed with adequate compensatory mechanism whereby its arterial blood supply can be increased or decreased in accordance with its work. Ordinarily the maximal flow through the coronary arteries may increase only three-fold while the work of the heart can rise 6 or 8 fold. In such circumstances, in order to prevent anoxemia and perhaps symptoms of angina, the individual fibre must extract a larger amount of oxygen from the blood passing through it. This is accomplished more readily by a myocardial cell than it is by an ordinary muscle cell because the former is endowed with twice the number of capillaries.<sup>17</sup> As a matter of fact, the heart fibres are, when necessary, capable of totally reducing the oxyhemoglobin so that under certain conditions the venous blood leaving the heart may be almost completely unsaturated.<sup>14</sup> This property acts as a protection for the heart in such diseases as pneumonia, emphysema and mountain sickness. The normal heart rarely suffers from oxygen lack, respiratory and cerebral checks being the first to come into play during physical effort. However, it must also be clear that at a time when disease narrows the lumen of the coronary arteries so that the flow of blood is reduced in volume, then during increased activity of the heart, anoxemia may readily develop and anginal pain occur.

Dilatation of the coronary arteries in the normal heart takes place when the cardiac output rises. This mechanism, mediated through the vagus nerve<sup>1</sup>, is brought into play during exercise and obviously serves to furnish additional nutriment to meet the increased metabolic needs of an exercising organ. It is similar to vasodilator mechanisms in organs in general. Thus far, very little has been done in an effort to utilize this reflex therapeutically in coronary artery disease. Perhaps the carbon dioxide baths, Schott resistance exercises and mild massage employed at various Spas do increase the cardiac output slightly and lead to coronary vasodilation in hearts where the sclerosis of the vessels still does not prevent the coronary artery reflex.

### I. Collateral Circulation in the Heart

The existence of collateral channels in the heart is now well established, but their usefulness in preventing or minimizing infarction in coronary closure is very indefinite indeed. Human hearts differ widely from each other in the number as well as the functional adequacy of collateral vessels. Furthermore, the adequacy of channels is related very closely to the speed with which closure of vessels takes place as well as to the particular vessel involved. Existing collaterals often require time for their efficient utilization, so that the sudden closure of a large artery may kill a heart which could survive if the same vessel were closed very gradually.

What, then, are the sources of collateral circu-

\*Read as part of the Symposium on Arterio-Sclerosis before the Fairfield County Medical Association and Bridgeport City Medical Society, Bridgeport, Conn., November 9, 1937.

lation in the heart? One type is that which unites the large branches such as the Inter-Auricularis Anastomotica Magna, which connects the right and left coronary artery prior to their division into circumflex and descending branches<sup>9</sup>. In addition there exists also numerous minute inter-coronary communications at their terminal distribution, so admirably portrayed in Gross's plates<sup>8</sup>. Another form is that which Winternitz and his associates have described within the wall of the artery itself. Sinusoids which are part of the vasa-vasorum, carry on a circulation through the wall of the artery and are capable of circumventing a thrombus in the lumen. In cross section they are probably the "canalizations" recognized by all pathologists but whose origin was until recently not understood.

Still another source of collateral circulation is found in the Arteriae Telae Adiposae: vessels in the epicardial fat, running parallel with the larger coronary branches, and anastomosing with them through the vasa-vasorum. Finally there are the communications of the coronary arteries with such extra cardiac arteries as the bronchials, internal mammary and pericardial arteries.

One might suppose that infarction of the heart would be a rarity when so many opportunities for collateral circulation exist. Unfortunately this is not the case and one is forced to conclude that these accessory channels are not functionally adequate, particularly at the time of sudden closure of large branches of the coronary vessels.<sup>18</sup> It is for this reason that Beck and Tichy were led to experiment with surgical methods of establishing a collateral circulation.<sup>2</sup> They have utilized vascularized adhesions between the layers of the pericardium as well as muscle grafts from the lower half of the pectoralis minor. The unbroken successes of their latest series of cases is extremely heartening for it is a truly direct physiological approach towards the relief of this disease. Perhaps in the near future it will not be necessary for the victim of angina pectoris to await with dread the fatal closure of a coronary artery.

**Reduction of coronary flow:** While there are circumstances in which the coronary flow is reduced temporarily — such as occurs in fainting or in rapid rhythms like paroxysmal tachycardia and auricular fibrillation — nevertheless, the

commonest cause of reduction in coronary blood flow is coronary sclerosis. It must be borne in mind that degeneration of the coronary arteries is but a local representation of generalized arterio-sclerosis, a disease which progresses at different rates in the different organs of the body. That is why some patients show more pronounced symptoms in the feet, others in the brain or kidney, but by far the largest number suffer from heart disease.

When one attempts to correlate the degree of sclerosis in the heart with the symptoms found in such patients, one is struck at once by the extent of individual variations. Thus Leary and Wearn<sup>12</sup> have described two cases in which there was apparently a total closure of both coronary arteries at autopsy and yet the patients died of an unrelated cause. Then there are many patients with fairly advanced sclerosis of the coronary arteries with only mild cardiac symptoms, and all of us have seen patients with almost a minimum of coronary sclerosis die quite unexpectedly. What can be the explanation? We are probably dealing with three basic factors, each acting as independent variables. First, as discussed above, there is the collateral vascular channel whose function may or may not increase as the pathology of the artery progresses. Second, is the cause and rate of progression of arterio-sclerosis itself in any given case. Third, is the accident of coronary thrombosis.

## II. The Cause and Progress of Arterio-Sclerosis

The admirable studies of Winternitz and his associates which were presented to this Society last month, clearly portray for the first time a rational explanation for the development of vascular degeneration. They point out that the arteries are organs supplied with special blood vessels. Those in the intima resemble in structure the Thebesian sinusoids in the heart, having no elastic or muscular coat. However in a variety of disease states they are subject to rupture. The resulting intra-mural hemorrhage, when minute, slightly raises the intima and reduces the lumen of the vessel. In time, natural reparative processes convert these hemorrhagic areas into calcified plaques. At times the hemorrhage is of such extent as to elevate the intima sufficiently so as to bring opposing surfaces together and completely occlude the lumen. At other times the hemorrhage is of such a na-



ture as to rupture the intima, exposing a raw, open, hemorrhagic wound. Perhaps some of the vascular contents escape into the blood current, there to act as microscopic emboli, in the terminal branches, while at the raw surface of the wounded intima a favorable site has developed for thrombus formation.

It is hoped that in the next step these investigators will elucidate the hereditary, constitutional, infectious, toxic, physical and metabolic factors that promote this dramatic series of events in the blood vessels. There are already clues in clinical experience which point in the directions which these researches will probably take.

(a) Sex. Women show a significant difference from men in the incidence of coronary artery disease, especially between the ages of 35 and 65. Thus for the year 1934, Dublin<sup>5</sup> reports an incidence of 12.5 deaths per 100,000 from coronary disease for females and 50.5 for males. The rates for angina pectoris yield about the same significant difference between males and females. Does the female sex hormone protect against coronary disease? Does the house-wife lead a life so different from that of her husband as to explain this difference? Does she smoke less? In the latter case, will the figures become equalized now that women are "emancipated"?

(b) Hypertension is probably the most important and common single etiologic factor in coronary sclerosis and especially in coronary thrombosis. Figures variously gathered, all agree on this point. Apparently persistent hypertension in time leads to vascular sclerosis, and what is perhaps of more importance, high intra-arterial pressures supply a factor which leads to vascular closure by thrombosis. And yet it should be borne in mind that merely physiologic hypertension such as occurs in coarctation of the aorta may not lead to sclerosis. Apparently the factor which causes hypertension also damages the artery and makes it susceptible to hemorrhage. In such vessels high intra-arterial pressures promote hemorrhage and thrombosis, especially in the heart. This would seem to have a medico-legal aspect which will be discussed below.

(c) Diabetes: The diabetic patient is very prone to develop coronary sclerosis. While this is but a phase of their susceptibility to general vascular disease, in fact a much higher proportion

die of heart than of cerebral or peripheral vascular disease.<sup>11</sup> Fortunately intelligent management of the diabetic today has greatly reduced the incidence of vascular sclerosis. In this group of patients, prevention is possible, especially with the present use of high carbohydrate, low fat diets and insulin. By this simple management, vascular degeneration is no longer inevitable for the diabetic patient.

(d) Obesity: Dublin & Marks<sup>6</sup> in a study of nearly 200,000 men, found death rates from arterial disease in general and coronary artery disease in particular to be relatively very high among the obese. Thus deaths from angina pectoris occurred twice as frequently among overweight as compared with normal weight individuals, and two and one-half times as frequently as among underweight persons. Similar figures prevail for deaths from arterial disease in general, although the differences are less striking. In this group again we are dealing with a preventable disease for the most part, one in which the duty of the physician is to vigorously combat obesity.

(e) Heredity: There is a widespread belief that one is born with a certain quality of "tubing", and it is true that a tendency to sclerosis is encountered occasionally in families. Only this last year I observed a father, mother and son, all of them dying of coronary thrombosis. In Levine's 145 patients with coronary thrombosis<sup>13</sup>, many gave histories suggesting familial susceptibility to vascular disease, especially among the younger patients. However, the evidence for hereditary susceptibility to vascular disease is far from conclusive and requires further documentation.

There are a number of other conditions in which vascular deterioration is encountered clinically. In Gout, "the forgotten disease", and in certain endocrine disturbances, of which myxedema of long standing is the most conspicuous, vascular deterioration often occurs. Inasmuch as both of these diseases are curable, it is well to be on the lookout for them.

### III. The Accident of Coronary Thrombosis

(a) Having recognized some of the precursors of coronary sclerosis, we may turn to the intriguing question of what are the chances that a given patient with coronary sclerosis will develop a thrombosis? The answer to this question is much more complicated than appears at first

sight. Without doubt, many mild closures of small vascular twigs occur without manifesting symptoms, and such patients are classified in other groups, for example, progressive congestive failure. Some hearts develop collateral channels which compensate for slow closures and thus reveal few or no symptoms. Recent pathologic evidence<sup>16</sup> obtained from hearts dying of coronary artery disease, reveals an unexpected multiplicity of closures. If, however, we reserve our previous question to clinical coronary thrombosis with recognizable evidence of infarction, then not more than 4 of 10 of the patients having coronary sclerosis may be expected to suffer a major infarction<sup>20</sup>. Such figures are heartening because neither the physician nor the patient need assume the inevitability of thrombosis. However, when characteristic evidences of progression of the disease predominate, then coronary closure may be anticipated. Given a patient whose symptoms such as shortness of breath, precordial pain on exertion and fatigue, are, over a period of time, induced by a lesser and lesser amount of effort or excitement, it may be expected that sooner or later such a patient will develop a complete closure. On the other hand, I have seen many patients whose capacity for exercise did not deteriorate, and even some who, on the contrary, improved. Such patients need never develop a closure. This clinical distinction as to whether a lesion is progressive or stationary is not only important in prognosis, but also in the management of coronary artery disease. The progressive case should certainly be viewed with gravity, more serious restrictions should be applied to his habits and actions and the Beck operation seriously considered.

(b) It is now pertinent to raise the question as to whether anything can be done to prevent thrombosis. Many physicians take the fatalistic view that almost nothing can be done. On closer analysis, however, this hopeless view is not altogether justified. First, one should attempt to appraise as nearly as possible the degree of closure of the coronary arteries. This may be accomplished by estimating the limitation of the cardiac capacity. The two step test of Master will indicate to what degree the capacity for exercise has been restricted, and if repeated over a period of time, whether this restriction is progressing. If so, then the patient is threatened with an impending catastrophe, that is, a coro-

nary thrombosis, and one must seriously consider the desirability of surgical intervention in an effort to establish a collateral circulation, and thus forestall thrombosis. The patient should avoid physical effort or excitement that may lead to undue increase in arterial pressure, since we have learned already that increased pressure in a diseased artery may contribute to thrombosis. The simple test of taking the blood pressure before, during and after certain grades of exercise, can provide a measure of the amount of exercise that is safe for a given patient to undertake. Finally, it is probable the reduction of the work of the heart generally will, of itself, prevent the deterioration of its arterial vessels. We know that the weight of the body in some way determines the work of the heart, but more important is the recognition that a weight reduction of 10% leads to a fall in the basal metabolic rate of from 15 to 20%. Since the work of the heart is proportional to the B. M. R.<sup>4</sup>, a loss of 10% of the body weight can relieve the heart of a significant part of its work. This procedure alone has, in my experience, often caused great improvement in the clinical picture. Here then are facts which point the way toward the rational management of the case of coronary sclerosis and an approach to the important problem of avoiding coronary thrombosis.

c. Does activity promote thrombosis in a sclerosed coronary vessel? Here a distinction must be made between the ordinary activity of everyday life and the occasional unusually severe and undue physical or emotional strain. The vast majority of patients, especially with coronary artery involvement, are naturally restricted to habits which eschew unusual and undue strain. However, there are instances in which sudden effort of an unusual and excessive character undoubtedly has raised the arterial pressure to an abnormally high level and promptly led to a thrombosis. It has been pointed out earlier that thrombus formation is due to hemorrhage in the vessel wall, and that the most common underlying factor in thrombosis is hypertension. It is therefore reasonable to infer that unusually excessive activity, in some patients, might lead to thrombosis. Many such instances are on record and the profession is generally aware of this relationship. Let me mention one or two taken from my own experience. A middle-aged man living a sedentary life



goes out to shovel the snow from his sidewalk. He is intrigued by the bracing air and believes the exercise should do him good. As he keeps doggedly on, he becomes more and more fatigued. He can scarcely finish, but there are only a few feet left. Suddenly he feels a "tear" in his chest; he grows faint; in a moment he feels well again; he enters his house profoundly fatigued, lies down. One hour later he is seized by a vise-like pain in his chest and exhibits a picture of major coronary closure. Another case that comes to mind is that of a man of 34, known to have hypertension. He is obliged to remove some pipes frozen in recently poured concrete. He wields an 18 pound sledge hammer; he continues to loosen one pipe after another, with great and increasing effort. As he arrives at the last one, tired and sweaty and out of breath, he suddenly develops an insufferable pain in his chest, almost faints, is carried home and shows the classical picture of a major coronary thrombosis. Similar cases are known to almost every physician and seem to establish criteria from which a cause and effect relationship may be deduced:

First, there must be evidence of a diseased artery.

Second, there must be an effort of extraordinary and unusual degree for the patient.

Third, such an effort should precede the coronary closure by an appropriate interval of time consistent with our knowledge of the pathology of thrombus formation.

In some cases, however, because the arterial closure follows a considerable time after the primary injury, any attempt to establish a time relationship between effort and thrombosis becomes speculation. I have in mind a man of 51, the front bumper of whose car was firmly locked with the rear bumper of another car. He strained violently to disengage them without success. After some moments of foolish adventure, with one supreme lift, he separated the cars, but in this heroic effort he suddenly felt faint, dizzy and experienced an uneasiness in his chest. In a short time he was well again, but for the coming week he was unduly tired and consciously short of breath. A week later he developed a sudden pain in the chest, in the location where he felt the discomfort a week previously. The pain grew in intensity and soon he showed all the characteristics of a major coro-

nary closure. If we knew definitely how long it takes for thrombi to form in the coronary arteries, we might be better able to relate the events in this case. My pathologist friends assure me that a week is not too long a time for such an event. Because thrombi require varying periods of time before they completely close a vessel, one can scarcely treat the subject of whether activity is related to thrombosis by statistical methods. Although it must be recognized that in many instances no cause and effect relationship can be elicited, nevertheless a sound rule to follow is that patients with coronary sclerosis should avoid unusual physical and mental strain.

d. Does physical activity immediately after thrombosis affect the size of the infarct? The answer is yes. It is a truism that an exercising muscle requires more oxygen and therefore a larger blood supply than a resting one. It is also true that a resting cell can survive a degree of oxygen deficiency that would destroy an exercising one. Experiments on dogs, forced to exercise immediately following ligation of a coronary vessel, showed a larger area of necrosis than in resting dogs with the same artery ligated. This simple physiological truth should be translated more often into the management of the patient with closure of the coronary artery. If every patient suddenly stricken by coronary thrombosis were to lie down on the spot and be carried to bed, probably there would be a decrease in the mortality from this disease. If physicians to such patients were to enforce absolute rest immediately, some deaths and much incapacity might be avoided. Even if the clinical picture is doubtful, the patient should be given the benefit of such doubt. It is preferable to bring the electrocardiograph to the bedside rather than the patient to the electrocardiograph. It is better practice to call an ambulance to the spot than permit the patient to drag himself home or to the hospital. Simple as this rule is, it is too often neglected. A simple case may be converted into a serious one and a grave one into a fatality. What the patient does the first few hours following the onset of coronary pain may determine the future course of his life.

What then should be done with a patient suspected of suffering from coronary thrombosis? He should be immediately immobilized, receive a large dose of morphine and, if possible, an

electrocardiogram at the bedside should be obtained. Treat him as you would a suspected fracture, but substitute the electrocardiogram for the X-ray.

(e) Thrombosis having occurred, can one appraise, even approximately, the size of the infarct? Before answering yes, it should be clearly stated that events often encountered in this disease are truly not predictable. I refer to recurrence of thrombosis of other vessels and to the accident of embolism. Both of these events may, and often do, gravely prejudice the outcome.

With these reservations in mind, one should then attempt to estimate the degree of circulatory impairment, since this is a measure of the extent of cardiac injury and therefore of the size of the infarct. If a patient sustains a thrombosis and the pulse remains slow, the blood pressure falls only moderately and a good pulse pressure persists; if there is no evidence of congestion of the lungs, neck veins or liver, if the heart sounds are altered but little, if no signs of impairment of peripheral circulation such as pallor, sweating and cyanosis appear, and if only a slight and transient increase in temperature follows, then it may be said the wound in the heart is slight, involving perhaps only a portion of the myocardial thickness. In such a patient, the expectation is that he will have an uneventful course and recover much of his cardiac reserve. If, however, the pulse is rapid, the blood pressure drops considerably and the pulse pressure declines, if there is a real change in resonance of heart sounds and some signs of congestion in the lungs, neck veins and liver appear; if the temperature is high and lasts a week or more, then the heart has suffered a serious insult. It may be safely predicted that recovery will be protracted, and having recovered, the patient will show a serious loss of cardiac reserve. Such patients suffer a high rate of mortality, somewhat over 50% and often develop parietal aneurysms.

The extreme case of collapse of the blood pressure and of the peripheral circulation, showing rapidly developing signs of heart failure is the example of a very large cardiac infarct and one in which an early, grave prognosis is usually justified.

By such simple methods of careful clinical observation, one is enabled to measure the degree of circulatory impairment and therefore the extent of cardiac damage, and often one comes to

the realization that the outcome in such cases is not always grave and that often one may with justice introduce a note of optimism in the prognosis.

(f) Thrombosis having occurred, what is the usual length of time that it takes for an infarct to heal? Much depends, of course, on the size of the lesion, the speed of reparative processes in the individual, and upon the total work the heart is called upon to perform. Dr. Roberts, with whom I have discussed this question, is of the opinion that the healing time is variable and may extend from three to eight weeks, depending upon the size of the infarcted area. However, certain systemic influences modify this period; anemia and syphilis definitely retard the healing process. Thus it can be seen that the pathological evidence suggests an important clinical procedure — the period of rest in bed that should be enforced by the attending physician.

An element governing the rate of healing is the amount of work which the heart is called upon to do at rest. It is axiomatic that mental and physical rest is a factor of considerable weight in recovery. What is less well-established is the load which food and water intake places upon the heart. Studies upon cardiac output are in agreement that a heavy meal increases the work of the heart by as much as 50% and that much drinking of fluid may raise the cardiac output 30%.<sup>7</sup> In the first few days after coronary thrombosis, most patients naturally eat and drink very little. From this point on it is highly desirable to restrict their food and water intake. Thus Master<sup>15</sup> limits the calorie intake to 800 and the fluid intake to 1000 cc. Since this simple contribution to therapeutics, there has been a steady increase in the proportion of patients recovering from coronary thrombosis and a striking decline in complications of this dread disease.

Are there any drugs which improve the prognosis in coronary thrombosis? Aside from morphine and other sedatives which relieve pain and reduce mental and physical activity, there is almost universal doubt about the efficacy of most drugs, except in special circumstances. Thus, if some pulmonary stasis develops, an intravenous mercurial may be helpful. In profound collapse, caffeine may be employed, while in Stokes-Adams syndrome, adrenalin may be of value. In general, a useful rule to follow is that



drugs are unreliable and cannot be expected to improve the outlook in cardiac infarction.

### The Role of the Electrocardiogram

In infarction of the heart, the electrocardiogram is often so characteristic that one may make a diagnosis without other data. In this respect it resembles in value the X-ray in diagnosing fracture of bones. Furthermore, in such a case the progressive changes and final stabilization of the record is of distinct value in determining the progress of the healing process. However, physicians often seek an electrocardiogram with the hope that it will diagnose coronary sclerosis or angina pectoris. It must be said categorically that to diagnose coronary sclerosis from the electrocardiogram is impossible, unless the record can be timed during and after an attack of angina pectoris and exhibits characteristic changes of infarction during the seizure. In the absence of such a positive test, a full knowledge of the clinical findings is necessary for a satisfactory interpretation of the electrocardiographic record and it is therefore most useful when interpreted by the physician in charge of the case. In coronary sclerosis the electrocardiogram is therefore but a part of the laboratory data which the clinician utilizes in his work-up of the case.

### Alcohol and Tobacco

In angina pectoris and coronary sclerosis, alcohol is a useful drug. It does not replace the nitrites, but nevertheless it gives comfort and often reduces the incidence of anginal attacks. It increases some patient's capacity for exercise. This was recognized by Heberden when he first described angina pectoris, and later experience has tended to confirm his opinion. However, it has been my experience that alcohol should be given in the form of whiskey. Beer, while it contains modest amounts of alcohol, produces flatulence and increases the fluid intake so that the beneficial effects to be expected from the alcoholic content are more than offset by other undesirable properties.

With regard to tobacco, very little exact information exists. The division of authorities seems based more upon whether they themselves smoke, than upon any pharmacologic evidence. In recent years two types of physiologic studies on smoking have appeared. In one the temperature of the extremities is taken by a thermo-

couple before, during and after smoking. The results indicate clearly that during smoking peripheral vaso-constriction occurs. In the other type, electrocardiograms taken during smoking, show in some patients changes in the T wave which might well be due to coronary constriction. Of course the part that smoking plays in causing arterial thrombosis of the extremities as described by Buerger is well known.

I have in mind one patient, a surgeon, who showed what seemed a clear relationship between smoking and coronary thrombosis. He was rather obese and showed evidence of coronary sclerosis. He gradually reduced his smoking because he developed a precordial pain after smoking two or more cigarettes. One morning before entering the scrub-room to prepare for an operation, he smoked a cigarette and developed a sharp precordial pain. He stopped his smoking, the pain subsided and he proceeded to the operation. On completion of his task he returned to the rest room and resumed his smoking; again the pain recurred, but this time it grew in intensity and there developed clear-cut evidence of a coronary thrombosis. It is of course true that this is an exceptional case. Nevertheless, any drug capable of producing vaso-constriction and thrombosis of the arteries, that can produce T-wave changes in the electrocardiogram, and which, in certain cases at least, has been followed by thrombosis of a coronary vessel, should be used with caution by victims of coronary disease.

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(Continued on Page 297)

# The Treatment of Coronary Sclerosis and Angina Pectoris by Grafting a New Blood Supply to the Heart\*

CLAUDE S. BECK, M.D., Chicago, Ill.

Since 1921 many thousands of dogs have been operated on in these investigations on the circulatory supply to the myocardium. It was demonstrated that adhesions to the heart might carry blood vessels by postmortem injection of the coronaries of a patient with rheumatic heart disease and again, directly, in a heart during operation for a compression scar.

Experiments were performed in which small pieces of tissue, such as omentum, fat or muscle, were grafted on to the dog's heart after mechanical removal of the epicardium. Silver bands placed around the main coronary branches were gradually closed. When the heart was injected later, new vessels from the graft were found anastomosing with the coronaries. Anastomoses with surrounding vessels such as mammaries and intercostals were also demonstrated by injecting barium or dye solutions into the coronaries.

Normally the coronary arteries are end arteries but fairly large intercoronary anastomoses develop after gradual occlusion. Silver bands were placed around the right and left branches of the coronary artery. If they were closed one-third of the way the heart continued to function. But if four or five peripheral branches were also closed off, fibrillation set in. The anoxic part of the heart beats out of unison with the rest and disturbances of ventricular beat are found.

Human cases for operation were selected with the following criteria:—

1. Coronary sclerosis with angina, showing EKG changes.
2. Pain refractory to medical treatment.
3. No congestive failure.
4. No evidence of coronary thrombosis within a year.
5. Minimum of generalized atherosclerosis.

6. General condition satisfactory enough to indicate a good operative risk.

7. Hypertension and well regulated diabetes no contraindication.

The operation consists essentially of opening the pericardium and grafting on to the heart one end of the transected left pectoral muscle. In favorable cases the procedure was followed by relief of pain and increased exercise tolerance. Of 25 operations none died during or immediately following the operation, but 32% died soon after. There was 50% fatality in the first 12 operations, 15% in the last thirteen. In the second half of the series, eight consecutive operations were performed without a single fatality.

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## EIGHT HOUR DUTY FOR THE PRIVATE DUTY NURSE

Six states alone remain in which eight-hour-a-day nursing has not been introduced. They are Delaware, Idaho, Maine, Mississippi, New Hampshire and South Carolina. There are today about 729 hospitals in this country using the eight-hour-a-day plan for private nurses. The nurses like this plan because their income has not been materially diminished, there is not the emotional, nervous or physical fatigue present under the twelve-hour system, and there is some opportunity for cultural development and recreation. Nurses who have worked under the plan are very enthusiastic in their endorsement of it, and say that they never wish to revert to the old schedule. The hospitals have raised the most strenuous objection because many times they have had to entirely rearrange their provisions for feeding the special nurses and have been forced to give up the extra revenue received in payment for nurses' meals.

—*J. So. Car. Med. Assoc.*, April, 1938

\*Abstract of paper presented at 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 21-23, 1937.



# The Diagnosis of Congenital Syphilis

J. HAROLD ROOT, M.D., Waterbury, Conn.

The symptoms of congenital syphilis in the majority of infants who survive become manifest in the first few weeks of life. The usual picture is onset of snuffles at about three weeks of age; pallor of the skin; uneasiness or crying, particularly in the evening with no apparent cause; chronic intestinal or digestive disturbances which do not respond to diet; loss of, or stationary weight; increasing lassitude and anorexia; cutaneous lesions; and sometimes convulsions. Other manifestations may be fissures about the mouth, mucous patches, condylomata about the anus, enlarged spleen, enlargement of the lymph glands, particularly the epitrochlears, and bone lesions.

The earliest skin manifestation may be the diffuse skin infiltrations, syphilids. They occur most characteristically around the mouth, eyebrows, anus, soles, palms and nails; and are of a dark red, yellow or brown tinged color. Fissures (rhagades) around the mouth are often seen. The soles show firm skin, dark brownish red in color with areas of branny scales. The maculopapular exanthem is the usual syphilitic eruption in infants. It most often begins several weeks after birth and develops on normal skin or on a diffuse syphilid. There is a preference for the face and extremities but it may be found over the entire trunk. At first the rash is bright red in color, later dark red with a copper colored tinge. The lesions are usually round and sharply circumscribed. A slight elevation of lesions usually occurs which with the copper color helps to differentiate it from the roseola of acquired syphilis. The lesions vary later from macules to pustular or vesicular forms.

In late congenital syphilis the children may show Hutchinson teeth, saddle nose, frontal bosses, sabre skins, interstitial keratitis, deafness, cerebral paralysis and loss of pupillary reflexes.

The internal organs are involved early in congenital syphilis:—liver, spleen, glands of internal secretion, pancreas, kidneys, walls of the intestine, and blood vessels.

Splenic enlargement during the first three

months of life is quite characteristic of congenital syphilis but in later months may be due to any one of a number of conditions. Icterus is occasionally present due to diffuse hepatitis. Syphilitic icterus has a peculiar dark color and persists for some time, which facts help differentiate it from the ordinary icterus neonotorum. The lymph glands may show a general enlargement in congenital syphilis. The glands are usually small, hard, and not tender. The ones which are not apt to be enlarged in other conditions such as the epitrochlears and occipitals are involved.

Symptoms of involvement of the central nervous system in infants tend to be obscured by the other general symptoms. Hydrocephalus is a common outcome with insomnia, restlessness and tendency to convulsions as manifestations of increased intracranial pressure. A lymphocytic pleocytosis of the spinal fluid is present and the albumin content is increased. A chronic basilar meningitis may be present, or rarely a meningo-encephalitis. Gummata may form in the brain. There may be no symptoms of these conditions until later, when cerebral paralysis and mental deficiencies occur along with the loss of pupillary reflexes, and optic atrophy.

There are two important early bone changes in congenital syphilis. Osteochondritis is manifested in the X-ray by a line of lesser density at the ends of the long bones bounded by a line of increased density on each side. Epiphyseal separation may occur here. This is the cause of the pseudo-paralysis occasionally seen in the arms of these infants. Periostitis is seen in the long bones, more particularly of the legs. The roentgen diagnosis is simple, and shows the periosteal layers reaching a very marked thickness, in some cases surrounding the diaphysis like a cloak.

A further aid in the diagnosis of congenital syphilis is the history of repeated miscarriages and perhaps a still birth or infant surviving only a few hours. A Wasserman on the cord blood is of doubtful significance as is also that on the venous blood for the first few weeks.

# The Treatment of Neurosyphilis\*

SAMUEL H. EPSTEIN, M.D., Boston†

In an address given last year before the Medical Society for the Study of Venereal Diseases in London, Dr. Simpson<sup>1</sup> of Dayton, Ohio, emphasized the value of artificially induced fever treatment as a adjunct to chemotherapy in the management of neurosyphilis. To the conservative Englishman, such a radical procedure emanating from America could hardly be expected to meet with whole-hearted approval. Consequently at the present time but little can be said about artificial fever therapy in Great Britain. In fact, even malaria which has become an established therapeutic agent in general paresis throughout the world is not given great acclaim by British psychiatrists and neurologists. Before going on to the evidence contained in the American literature, it may be well to scrutinize some recent data from British workers in the field and to ascertain to what extent conservatism with regard to fever therapy is justified.

When in December of last year I attended a symposium at the Royal Society of Medicine on the subject of end results of treated cases of general paralysis, I was impressed by the spirit of skepticism with regard to therapy. J. E. Nicole<sup>2</sup> of Lancashire presented the data of 115 malarial treated cases studied ten years or more after admission to the hospital. Of these, 31.3% had been discharged although some patients relapsed and subsequently returned to the hospital. At the end of the ten year period, only 11.3% of the group were alive and at home, while 17.4% were living in mental hospitals. As a result of investigations carried out at the Malarial Treatment Centre in Horton, W. D. Nicol<sup>3</sup> reported 60% or more therapeutic failures and made the important differentiation between the effectiveness of malaria as a spirochaeticidal agent and the role of malaria in effecting genuine clinical cures. His figures showed that not much over 20% of the cases achieved clinical recovery, while in about 85% malaria was an effective spirochaeticide, based

on the negative serological and histopathological findings. Furthermore, he emphasized the fact that mental hospitals are becoming burdened with a population of semi-arrested paralytics, in whom life is prolonged but whose usefulness is socially and economically nil.

That is a problem which must occupy our attention in the evaluation of any form of therapy in neurosyphilis, and is equally as applicable to artificial fever as to malaria. It must be pointed out that whatever form of treatment is employed the subsequent clinical course of the patient will depend upon the extent of actual degeneration of nervous tissue, which represents irreparable damage to the brain produced by the spirochaete before treatment is instituted. I shall return to this question later and discuss the problem of how these inevitably poor therapeutic results may be avoided.

In contrast to the British statistics, I would now present the results of treatment reported in recent American literature as well as the results obtained in the last ten or twelve years in the neurosyphilis clinic of the Boston Psychopathic Hospital. With regard to malaria, a survey of over 3,000 cases of general paresis was published by Solomon and myself<sup>4</sup> in 1935, showing that good remissions varied from 20 to 41% and partial remissions ranged widely from 8 to 50%. In our own series of 173 cases, 36.4% were reported as improved and working and an additional 12.1% were improved but not working. A general averaging of the figures reported in the literature was made by Moore<sup>5</sup>, based on an analysis of 5,000 cases, and showed that a complete remission occurred in 25%; an incomplete remission but with ability to work in 20%; and incomplete remission requiring permanent hospitalization in 25%. More recently Neymann<sup>6</sup> in a report before the First International Conference on Fever Therapy cited Kraepelin's compilation of more than 3,000 cases with improvement in approximately 43%, and con-

†From the Department of Diseases of the Nervous System, Harvard Medical School.

\*Presented before the semi-annual meeting of the New London County Medical Association in Norwich, October 7, 1937.



trasted this with the figure of 63% of nearly 1,000 cases treated by artificial fever reported in the literature during the past ten years. In another comparative study made in the State Hospitals of Illinois by Kuhns<sup>7</sup>, the improved group included 66% of the malarial treated cases, in contrast to 72% and 78% of the diathermy and electric blanket series respectively. In a smaller group of 247 patients treated in 1934, the same author reports an improvement rate of 68% for malaria and 46 to 60% for artificial forms of fever therapy. There is still another comparative study recently reported by Barnacle, Ebaugh and Ewalt<sup>8</sup>, on two groups of 30 cases each treated by malaria and by artificial fever, showing clinical arrest in 40% and improvement in 30% of the artificial fever group, and corresponding figures of 23.3% and 40% of the malaria cases. It is to be noted that these results are obviously not very dissimilar.

In this connection the figures based on a recent analysis of the cases of general paresis treated by artificial hyperpyrexia at the Boston Psychopathic Hospital may be in order. During the period of nearly seven years, 113 cases have been so treated, employing fever produced by diathermy, electric blanket, circulating hot moist air, and the electric light cabinet. In this series analyzed in September of this year, 7.9% of the patients were markedly improved, while some improvement was noted in an additional 40.7%. Other forms of neurosyphilis have also

been treated with artificial fever in this clinic; namely, juvenile paresis, tabes dorsalis, and the late meningovascular varieties. In the juvenile cases the results are no more encouraging than those of malaria treatment. It may be presumed that in such cases the neuronal damage already existing does not permit of a satisfactory clinical result, although the serology may be eventually reduced. About one half of the tabetic cases are relieved as the result of artificial fever. There is usually marked relief from the lancinating pains, and occasionally the visceral crises may be stopped. It has been frequently observed that a bout of fever is capable of stopping a crisis but not necessarily of preventing recurrences. In cases of optic atrophy no real improvement has been noted in the visual fields, but there is some evidence that fever delays the progress of the atrophy. Some cases of Charcot joints have been helped by fever therapy, and there is X-ray evidence of absorption of bony detritus in the involved joints; in addition, reduction in joint swelling has occurred. In cases of meningovascular syphilis, fever therapy often speeds up the slow response to chemotherapy.

A more detailed analysis of a smaller number of cases treated by diathermy was made in 1935<sup>9</sup>, the period of observation being from one to four years. This report also included a comparative study of our malaria and tryparsamide series, together with the results reported in the literature.

Table I. Comparison of Clinical Results

	<i>Malaria Series, 173 Cases</i>	<i>Malaria Series, 5,000 Cases*</i>	<i>Hyper- pyrexia Series, 648 Cases†</i>	<i>Diathermy Series, 33 Cases</i>	<i>Trypars- amide Series, 81 Cases</i>
Improved	48.5%	45.0%	27.1%	24.2%	42.0%
Partially improved	15.2	25.0	40.1	33.3	29.6
Unimproved	13.8	20.0	24.8	12.2	22.2
Dead	22.5	10.0	8.0	30.3	6.2

\*J. E. Moore's mass statistics compiled from the literature.

†Hyperpyrexia series compiled from literature.

There is also given a summary of the results of hyperpyrexia reported in the literature to 1935, showing good remissions in about 27%. A comparison of the serological results in these three

series of cases shows closely similar percentages for improvement in the malaria and tryparsamide cases, while the figures for the diathermy series are appreciably lower.

Table II. Comparison of Serologic Results

	<i>Malaria Series, 173 Cases</i>	<i>Tryparsamide Series, 81 Cases</i>	<i>Diathermy Series, 33 Cases</i>
Normal	36.7%	37.5%	21.9%
Greatly improved	20.7	16.3	12.5
Moderately improved	18.3	10.0	15.6
Unimproved	24.3	36.2	50.0

This indicates the spirochaeticidal effect of the treatment without relation to functional results.

It may be concluded from these studies that treatment with tryparsamide is capable of producing beneficial results similar to those produced by malaria. In the tryparsamide series of 81 cases studied over a ten year period and reported by Solomon and myself<sup>10</sup>, clinical arrest occurred in 42% of the cases. Seventeen of the 23 patients in this series who did not respond satisfactorily to tryparsamide were subsequently given fever therapy with strikingly beneficial results, both serologically and clinically. These observations led us to make the statement that combined treatment with tryparsamide and malaria in many cases is far superior to the use of tryparsamide alone, and that the subsequent use of malaria may give a satisfying therapeutic result in patients who do not respond favorably to tryparsamide alone.

At this point I wish to emphasize the importance of tryparsamide in the armamentarium of the neurosyphilologist. First introduced in 1923 by Lorenz and his associates, it was given thorough trial in various clinics throughout the country, and almost without exception reports on its use as a therapeutic agent in neurosyphilis have been favorable. It was soon learned that this drug was very different from the older arsenical preparations, such as arsphenamin. In contrast to the latter trivalent preparations, tryparsamide is a pentavalent arsenic compound. While it has very low spirochaeticidal value, as evidenced by its effects in early syphilis, it has a very definite beneficial effect on the central nervous system. In cases of early neurosyphilis of the meningeal variety, prompt response is invariably obtained with the use of tryparsamide. This is also true of the ordinary type of early meningovascular syphilis. In late neurosyphilis of the more benign varieties, that is, in the cases of so-called cerebrospinal syphilis,

tryparsamide is effective much as in the early cases, but there are undoubtedly exceptions to this rule. The response of the more malignant, parenchymatous forms of neurosyphilis, general paresis and tabes, is still more crucial, and illustrates most clearly the differentiation between tryparsamide and arsphenamin. In such cases it is very rare for the cerebrospinal fluid serology to improve under arsphenamin treatment, and it is fair to state that preparations of trivalent arsenic have no longer any place in the treatment of neurosyphilis. Tryparsamide, on the other hand, invariably produces improvement in the serology if continued long enough; often several years' treatment is required for a satisfactory result.

As already indicated, there are instances in which in spite of intensive tryparsamide treatment over a period of years, recovery is not obtained. In such cases experience has shown that fever therapy produces a potent beneficial effect. In 1936 Solomon and I<sup>11</sup> reported a series of twenty-one cases which had shown little or no improvement under tryparsamide therapy but which responded very promptly both serologically and clinically to the subsequent use of malaria. Thus the statement was ventured that a considerable number of preliminary tryparsamide injections greatly enhances the probabilities of success in the treatment of general paresis by fever. A few brief sketches may be given to illustrate the therapeutic results in this series.

CASE 7. W.McC., was a forty-year old man whose case was diagnosed as general paresis about six months after the beginning of his symptoms, which began in 1926. The spinal fluid at that time showed a positive Wassermann reaction in 0.2 c.c., 98 cells per cubic millimeter, globulin three-plus, total protein 183 mg. per cent, gold sol 4555200000. Between October, 1926, and June, 1931, he received 81 injections of tryparsamide, 3 gm. each, 13 injections of arsphenamin, and 13 injections of bismuth. Clinically he was considered as unimproved in 1931, although the spinal fluid had shown improvement, as the Wassermann at that time was positive with 0.8 c.c. and



negative with 0.6 c.c. There were 24 cells per cubic millimeter, total protein was 54 mg. per cent, globulin was negative, and the gold sol 4445555400.

During the months of June and July, 1931, he had eleven paroxysms of malarial fever. In September, 1931, the spinal fluid was negative, and a few months later he was considered as clinically arrested. Subsequently, he received 114 injections of tryparsamide and remained in good clinical condition in 1935.

CASE 9. H.W., was a fourteen-year old boy presenting symptoms of neurosyphilis. In the three years following the diagnosis he received 38 injections of tryparsamide, and 30 injections of nearsphenamin. At the end of this time he developed a hemiplegia. The spinal fluid showed a positive Wassermann reaction in 0.2 c.c., 10 cells per cubic millimeter, globulin 1 plus, total protein 69 mg. per cent, and gold sol 4444310000. He then was treated with malaria, having eight paroxysms. This was followed by more tryparsamide. Very shortly following the malaria, the cerebrospinal fluid findings showed improvement and at the end of one year the spinal fluid Wassermann reaction was negative in 1 c.c., there were 3 cells per cubic millimeter, one-plus globulin, total protein 59 mg. per cent, and the gold sol test was negative. A marked mental improvement occurred rapidly and the hemiplegia cleared up with hardly any residual paralysis. One and a half years after the malaria he was in good condition.

CASE 18. F.W., at the age of twenty-two years began to show signs of mental deterioration. Two years later a diagnosis of general paresis was made. The question naturally arose whether this was on the basis of acquired or congenital syphilis, which question has never been satisfactorily answered, as there is no history of the acquisition of syphilis, and only slightly suggestive stigmas of congenital syphilis insufficient to allow a definite conclusion. At any rate, he received during the two years following diagnosis, 87 injections of tryparsamide and 25 injections of mercury. At the end of the two years of treatment he was unimproved clinically and continued to deteriorate. The spinal fluid gave a Wassermann reaction positive in 0.2 c.c., 22 cells per cubic millimeter, globulin one-plus, total protein 37 mg. per cent, and gold sol curve 5554300000.

He had 13 malarial paroxysms. This was followed by 51 injections of tryparsamide in the following nine years. At the end of one year after the fever, the spinal fluid gave a negative Wassermann reaction with 1 c.c. of fluid, 2 cells per cubic millimeter, no globulin increase, total protein 23 mg. per cent, and gold sol curve 0011000000.

CASE 21. D.S., was a thirty-five year old man whose case was diagnosed as general paresis six months after the beginning of symptoms. During the subsequent five years he received 100 injections of tryparsamide and maintained a clinically stationary condition, but the cerebrospinal fluid did not become negative, showing a positive Wassermann reaction in 0.2 c.c., 6 cells per cubic millimeter, globulin two-plus, a total protein of 75 mg. per cent, and a gold sol curve of 1113221000.

He was inoculated with malaria, having eleven paroxysms. Five months later examination of the cerebrospinal fluid showed a negative Wassermann reaction in 1 c.c. of fluid, 3 cells per cubic millimeter, globulin negative, total protein 39 mg. per cent, and a negative gold sol test.

I do not hold an unequivocal brief for this sequence of treatment with tryparsamide followed by fever. There is good evidence both in our own series of cases and in those reported in the literature that good results were observed in those patients who received fever therapy followed by tryparsamide. The most recent contribution on this subject was made at the International Fever Conference this year by Hinsie and Blalock<sup>12</sup>. In a study of 326 cases of general paresis treated with tryparsamide, malaria, and electropyrrexia observed after 12 years, the most favorable results occurred in those patients receiving fever therapy followed by tryparsamide. From the practical standpoint it is to be borne in mind that a certain proportion of even the most malignant cases of neurosyphilis will respond satisfactorily to treatment with tryparsamide alone, and that fever, induced by malaria or mechanical means, constitutes an even more potent therapeutic agent.

The question of the place of fever in the treatment of early syphilis has been the subject of several recent reports<sup>13</sup>, (Simpson, Epstein and Cohen, Neymann, Lawless and Osborne, Simpson and Kendall). The concensus of opinion is that artificial fever fortifies and intensifies the curative action of chemicals, that the time required for adequate treatment can be greatly reduced, and that the combination of fever and chemicals may allow for smaller doses of the drug.

The various modes of producing artificial fever have occupied the attention of many workers in the therapeutic field, and much work has been done in the construction of apparatus and in the study of its physiological effects. Our own experience at the Boston Psychopathic Hospital has been concerned with diathermy, electric blanket, circulating hot moist air (Kettering Hypertherm), radiant energy cabinet and the inductotherm, as well as malaria and typhoid vaccine.

Due to the efforts of Dr. Kopp working in conjunction with Drs. Gibson and Pijoan in our clinic, some interesting and important physiological observations were made in connection with mechanically induced hyperpyrexia. The changes during fever produced in this way were more marked than those which occurred during "natural fever". As a result of studies of the acid-base balance of the blood, blood chemistry and blood volume, it was found that changes in

the body are at a minimum when fever is induced by malaria or typhoid vaccine and most marked when circulating hot moist air alone is used. Comparative data made on the per cent of reduction of plasma volume during fever, indicates that little or no change occurs during fever induction by malaria, typhoid vaccine and diathermy, but with the Hypertherm the reduction is extreme and occurs early in the course of fever induction, with the result that a severe degree of tissue dehydration takes place by the time therapeutically desired temperatures have been obtained. Chemical analyses of the blood during the course of the fever were characterized by severe dehydration and hyperventilation, bringing about a pronounced alkalosis, at times approaching a critical level. The conclusion was reached that the degree of dehydration and the danger of serious circulatory disturbance is considerable during fever induced by the Hypertherm even when fluids are liberally given by mouth.

The physiological concomitants of fever naturally lead us to a consideration of the rationale of fever therapy. Is it high temperature alone which is responsible for the therapeutic results? Or are there other factors involved? Wagner-Jauregg<sup>14</sup> in the Cameron Lecture of the University of Edinburgh in 1935 made a critical survey of the various factors. He calls attention to the many recorded instances of recoveries in cases of general paresis treated by malaria without developing fever; also that cures occur after malarial fevers with lower temperatures than those with mechanically induced fevers. Moreover it has been demonstrated conclusively that the brains of malarial — treated paretics have lost their typical pathological picture. In this connection it must be pointed out that even if the spirochaetes disappeared completely from the parenchyma of the brains of recovered paretics, the cerebrospinal fluid often still shows positive reactions which are commonly considered as proof of the presence of spirochaetes in the central nervous system, and as in other organs in the body may produce again neurologic lesions. On this account Wagner-Jauregg argues that in malaria treatment the brain parenchyma attains a certain capacity to react against syphilitic infection, similar to the capacity of the central nervous system in secondary cases of syphilis to remain free from spiro-

chaetal invasion in spite of positive serology. Therefore it may be assumed that malaria acts principally by increasing the faculty of resistance of the brain to spirochaetes and also to other noxious substances produced by them. The theory of the production of immune bodies in the serum and cerebrospinal fluid in remitted cases is not tenable in the light of many failures to demonstrate these defense mechanisms. But there is some evidence that malaria exerts an effect on the reticulo-endothelial system of the body and in this way brings about beneficial results. It is probable that the physical methods of hyperpyrexia induce similar processes in the tissues, although this has not yet been demonstrated. That malaria has a direct action on the brain is indicated by the anatomical evidence of focal reactions in the brain tissue, the characteristic changes in the central nervous system during malaria, and the occurrence of psychic disturbances in the course of malaria fever in cases of latent asymptomatic neurosyphilis.

Aside from these considerations of the mechanism of action of fever therapy, a positive statement even on clinical grounds can not yet be made as to which of the many methods evoking fever is most beneficial therapeutically. The evidence supplied by the results reported in the literature is not entirely convincing one way or the other, and the experience of more than six years with mechanically induced fever and of twelve years' use of malaria at the Boston Psychopathic Hospital does not permit of a definite statement. Malaria is still a very satisfactory method; it is certainly cheaper, simpler and when properly utilized by no means more dangerous.

Such an attitude on my part may be likened to the conservatism of the British, referred to in my opening remarks, and their skepticism with regard to the effect of malaria in bringing about "practical cures" in general paresis. As already mentioned, fever is capable of destroying spirochaetes and eradicating the inflammatory reactions in the nervous system, but it cannot alter the irreparable degenerative changes which in large measure explain the practical failures encountered in malarial therapy of general paresis. For this reason I would emphasize that in such advanced cases of neurosyphilis one can hardly expect recovery, regardless of the type of therapy employed. Therefore, the really important problem before us is not so much to determine which



method or combination of methods is most efficacious in the treatment of neurosyphilis, but rather to prevent the occurrence of the advanced cases with irreparable damage to the nervous tissue.

There are today available two potent therapeutic agents; namely, tryparsamide and fever. Both have been shown to have a high degree of efficiency in all types of neurosyphilis, almost invariably producing cures in the asymptomatic stage of the disease, that is, before the neuraxis becomes involved by degenerative changes. When in a given case the cerebrospinal fluid shows positive reactions, there is hardly any place for ordinary antisyphilitic treatment, and in such cases tryparsamide is the drug of choice. Obviously the only way in which neurosyphilis can be detected before clinical neurologic symptoms appear is by lumbar puncture. The dictum that lumbar puncture should be done in every case of syphilis has frequently been made, but unfortunately not always executed. This point cannot be too strongly emphasized. Considerable evidence has accumulated to indicate that asymptomatic neurosyphilis, that is, positive serology without clinical signs or symptoms, is the forerunner of general paresis and other late clinical varieties of neurosyphilis. Thus it is obvious that the most effective treatment of neurosyphilis is *prophylaxis*.

In this connection, I would refer again to the data from the Horton Mental Hospital<sup>15</sup> in England. In searching the records of the patients treated by malaria, there was found a group of 55 cases in which the existence of neurosyphilis could have been discovered earlier. A table giving the clues to the diagnosis shows that in every instance the previous diagnosis of syphilis in a member of the patient's family afforded ample opportunity for the discovery of neurosyphilis in its asymptomatic form, that is, before clinical signs of paresis appeared. This is an extremely important point and is an excellent illustration of the value of follow-up work. In addition, it is pointed out that the 134 malarial treated cases in this analysis also represent opportunities for early diagnosis and treatment which had been missed. These cases might have been detected years previously in the asymptomatic stage, and thus certification or commitment would have been avoided. In over 100 cases an illuminating study was made of the reasons for

which anti-syphilitic treatment was instituted. These represent patients who came to the attention of the physician in the late and latent stages of neurosyphilis, and who received totally inadequate treatment. In only four patients was pentavalent arsenic given in the form of tryparsamide. All the others received various combinations of N.A.B., bismuth preparations, mercury and iodides and mercurial injections. If appropriate treatment had been applied, the chances are very good that paresis would not have developed in a large number of these cases. In order to give some idea of the time interval between the institution of anti-syphilitic treatment and certification, an analysis of the various clinical groups given in tabular form shows that in the majority of instances considerable time, varying from one to ten years, was available for the application of appropriate treatment.

These studies represent three important aspects of the problem of neurosyphilis; namely, the improvement of anti-syphilitic treatment, the incidence of syphilitic infection in partners and their families, and the prognosis of the asymptomatic cases. If attention is paid to these points, the treatment of neurosyphilis would be greatly simplified, and as far as the central nervous system is concerned, *prophylaxis* is far more important than the actual attempts at treatment of the half a million of people in this country who each year seek treatment for late syphilis for the first time.

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(Continued on Page 299)

# Diabetes Mellitus

THOMAS P. MURDOCK, M.D., Meriden, Conn.

This is a review of one hundred and twenty-five diabetics all of whom have been seen in private practice either as private patients or in consultation. Included of course are those who were seen in extremis. The records have been discarded in all those cases which were found impossible to follow accurately.

The general situation of the diabetic has changed since the advent of insulin. This applies not only to the prognosis and duration of the disease but to the general picture. People have become diabetes minded and physicians are becoming more careful in their investigations. Seldom now does the physician see the wasted, undernourished diabetic of the Allen period. It is now impossible to tell that the average diabetic is suffering from a chronic wasting disease. I believe that more cases are being found at the time of general physical examinations, insurance examinations, and at the beginning of the earliest symptoms than ever before. I believe that this augurs well for the future diabetic.

However, one phase of the situation is still quite marked. In this group the writer found it very difficult and at times impossible to get a history of diabetes in another member of the family. Patients continue to feel that it is a stain which should not be present. In almost every case either they did not know or would deny the occurrence of the disease in another member of the family. In any event the admissions were all too few to be of any value in this review.

## Age

The average age of all these patients when they presented themselves for study was 52.9 years. In Figure I the number appearing in each decade is outlined. Of the total, eighty-nine or seventy-two per cent were between forty and seventy years of age. The average age of 52.9 years in this group is about the same as that of a very large group analyzed by Joslin<sup>1</sup>. In his series the median age at which the males presented themselves for examination was 51.1 years

and the females, 53.3 years. One cannot help

Age Group	
Under 10 years	2
10-20 years	5
20-30 years	4
30-40 years	11
40-50 years	16
50-60 years	35
60-70 years	39
70-80 years	10
Over 80 years	3

Figure 1

but be impressed with the fact that the disease is one of middle life.

## Duration of the Disease at the first examination

This of course is a very unreliable part of the history. In some instances the history was obtained from the patient himself or from some member of his family. When this was not known or if it appeared unreasonable to believe that the patient's first knowledge of the disease was on the day of examination, an attempt was made, by carefully questioning him as to prominent symptoms, to tie up the beginning of the disease with that time. From this it was determined that the average duration of the disease at the time of the first examination was 2.86 years. How this unfortunate situation should be attacked is difficult to say but the fact remains that these people, on the average, were suffering from the disease for a period of approximately three years before they knew it. An educational program advising annual physical examinations or, at least, annual examinations of urine or blood sugar determinations might reduce this period considerably. Of the group, all but fifteen had previous knowledge of the disease, but in most instances had ignored or carelessly managed it. The longest known case from history was thirty years. This was a man admitted to the hospital with a gangrenous leg who in-



sisted that he had been told of the disease thirty years before. One case had been observed and managed by the writer for twenty years. The very large majority of the group had the disease from one to five years.

### Prognosis as to Time

Of these cases sixty-five are dead. The average age at death was 61.4 years. The average duration of the disease was 7.11 years. The youngest was five years; the oldest eighty-one years. In the Joslin<sup>2</sup> series the average age at death was 63 years.

Of those living, fifty-seven could be traced. The average age is 61.1 years. The average duration of the disease is 11.8 years. The oldest living in the group is eighty-two years, and one is seventy-eight years. The youngest is twenty-four years. Included in the group are two cases with the duration of one year each, one with a history of thirty years duration and one known positively to be of twenty years duration.

### Race

An attempt is made to investigate the racial factor involved in the disease. All of the cases came from an area with a population of sixty-five thousand and a very large majority from an area with a population of forty-two thousand. Of this number fifty-three or forty-two per cent of the cases were of the so-called American race of English extraction. Peculiarly enough forty-four per cent of the population in this area is made up of this group. Twenty-three or eighteen per cent were of Irish extraction. The ratio of this group to the population is thirteen per cent. Fourteen or eleven per cent were of Italian extraction. The ratio of this group to the population was twelve per cent. Ten or eight per cent were of Jewish extraction. The ratio of this group to the population is two per cent. Ten or eight per cent were of German extraction. The ratio of this group to the population is seven per cent. Four or three per cent were of Swedish extraction. The ratio of this group to the population is one per cent. Four or three per cent were of Polish extraction. The ratio of this group to the population is fourteen per cent.

These figures bring out some very interesting facts. There is a marked disproportion between the percentage of population and the percentage of diabetes in this series in those of Irish, Jewish, Swedish and Polish extraction. In the three former, the proportionate increase in the disease

is noticeable. In those of Irish extraction the ratio is about one and one-half to one. Joslin<sup>3</sup> in his extensive review has brought out the high percentage of diabetes amongst the Irish race in the United States. The ratio in those of Jewish extraction is about four to one. Weiner and Boldman<sup>4</sup> have brought out the high incidence of diabetes amongst the Jewish people as compared with Gentiles. The ratio in those of Swedish extraction is about three to one. A pleasing factor is noticeable in those of Polish extraction wherein this group represents fourteen per cent of the population and only three per cent of these cases were found amongst that race. I am not familiar with a previous review involving those of the Polish race. In all of the other groups the percentage of population seems to go hand in hand with the percentage of the diabetes.

### Vascular Signs found at first examination

Sixty-nine or fifty-five per cent showed some heart involvement at the first examination. The term heart involvement covered a variety of symptoms and signs found chiefly in the arterio-sclerotic. At the time of the first examination eleven of these people were found to have coronary disease. These findings were confirmed by electro-cardiograms. One must not, however, forget that the average age of these patients was 52.9 years, placing them in an age period where the incidence of coronary disease is high. On the other hand it is a notorious fact that the diabetic develops arterio-sclerosis very early in his disease. Other cardiac findings were enlarged heart, auricular fibrillation and heart failure.

An interesting and I think an unusual sign was fast heart rate. This occurred in thirty-six or twenty-eight per cent of the patients at the first examination and persisted at several subsequent examinations. This is a finding which occurred all too frequently to be ignored. I am not familiar with any previous observation of this sort. It was not associated with any other complications which might produce fast heart rate and seemed to be purely a heart and vascular complication.

At the first examination seventy-five or sixty per cent had a systolic blood pressure above 140. This also might be explained by the fact that these people had an average age of 52.9 years and that the average duration of the disease was 2.86 years. This number of course increased as the disease progressed. Forty or thirty-two per

cent were classed as having poor blood vessels of the feet indicating that no pulsations or very faint ones were found in the dorsalis pedis and posterior tibial vessels. If we would keep in mind the fact that one-third of all diabetics have poor blood vessels of the feet at the first examination it would be possible, at least, to postpone the serious difficulties that come to them later on. I think we are prone to pay too much attention to blood sugar and urinary findings and too little to vascular findings. It is imperative that the feet be investigated at each visit.

Three patients have had two attacks of gangrene but have not as yet come to surgery. However, in each case a long period of bed rest was required. Ten or eight per cent have had one leg amputated and three have had both legs amputated. It is important in these cases to properly separate and evaluate infection and pure arteriosclerotic gangrene. In the former it is not unwise, if the blood vessels are in fairly good condition, to drain the area thoroughly. On the other hand, if the blood vessels are involved it is extremely dangerous to postpone amputation. It is not uncommon in the cases of pure arteriosclerosis for the toes to amputate themselves and amputation of the leg is postponed.

At the first examination twenty-six or twenty per cent showed definite evidence of retinitis characterized by recent or old hemorrhages. In addition to these two who are living and who did not show any evidence of it at the first examination developed it sometimes prior to death.

The picture of progressive vascular disease facing the diabetic is extremely serious and of the gravest concern to him. It probably is one of the most important problems which the internist and surgeon has to face.

#### **Complications not related to diabetes**

There were many and varied complications not directly related to diabetes. Four had cancer, three had gal-bladder disease and four developed lobar pneumonia during the period of management. Two had appendectomies, one had a kidney removed and three had prostatectomies.

#### **Complications directly related to diabetes**

Two had carbuncles, two had streptococcic septicemia and one had staphylococcic meningitis. Unfortunately three of these people were not known to have diabetes until the onset of the complication.

### **Acidosis and Coma**

During the period that these people were managed forty cases of acidosis assumed proportions that were alarming. The unfortunate part of this situation however is that it occurred in only twenty-two of the patients and several had more than one attack. There were thirty-three cases of coma in addition to the recorded severe acidosis attacks.

### **Causes of death**

Of the sixty-five patients who died, the cause of death was directly connected with the vascular system in thirty-three cases or fifty per cent. Of these, fourteen died of coronary thrombosis; ten of heart failure; five with gangrene died post operatively and two with gangrene who refused operation; two died of cerebral hemorrhage. Again one is faced with the high mortality associated with vascular disease complicating diabetes. One-half of the people who died had had their vascular systems severely attacked. There were four deaths from tuberculosis; these occurred however in the very early days of insulin. The remainder of the deaths were only indirectly connected with diabetes.

### **Comment**

The diabetic of the present time is faced with a fifty per cent chance of a vascular death unless accident or acute infection intervenes. This is a challenge to medicine which cannot be overlooked. Over half of the deaths from diabetes are caused by an insult to the vascular system.

### **Conclusions**

1. An analysis of 125 diabetics who were seen in private practice is presented.
2. The average age when the patients were first seen was 52.9 years.
3. The average duration of the disease in those who died was 7.11 years.
4. The average age at death was 61.4 years.
5. The average age of those living is 61.1 years.
6. The average duration of the disease in those who are living is 11.8 years.
7. Vascular complications were the cause of death in fifty per cent of the cases.

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# Conservative Steps in the Treatment of Petrositis\*

JOHN RANDOLPH PAGE, M.D., New York City

The subject of petrositis has been so generally discussed in the societies of our specialty throughout the country during the past five years there is little left to say about it that has not already been said. The subject is well summed up by Henry L. Williams of Rochester, Minn., in his review of the literature on petrositis published in *Surgery, Gynecology and Obstetrics*, January, 1937. Something, however, still might be said with advantage against the use of complicated procedures where simpler and safer methods have proven adequate in many cases. In other words, I think too much attention has been called to the *exceptional* cases and the radical methods of operating on them and not enough attention has been called to the better results that have been obtained by conservative measures in the *majority* of cases. Not that surgery of the apex should not be perfected and practiced where it is indicated, but neither should we let fascinating descriptions of operations influence us to perform them where they are not indicated, at least not indicated until the safer and simpler measures have been tried. Where mastoid surgery is fairly thoroughly performed the development of petrositis is certainly rarer than where it is not.

There were but nine cases of petrositis recorded among the 3465 cases of middle ear and mastoid suppuration that were admitted to the wards of the Manhattan Eye, Ear and Throat Hospital during the past five years. Of that number 2325 had mastoid operations performed on them. Five of the nine cases of petrositis were on one service, three on another, one on my service and there were none on the fourth. Which indicates that the diagnosis of petrositis is differently applied on the four different services as there is no great difference in the number of cases seen by each of them. Some may make the diagnosis of petrositis on cases that others admit to the hospital as unhealed mastoidectomies for re-operation.

There were two deaths among these nine cases. One of them occurred on my service during my absence, and I am told it had no sixth nerve paralysis, no localized pain or significant signs of petrositis, but it developed meningitis rapidly and died. At autopsy a perforation was found at the apex of the pyramid. Petrositis was not suspected and no second operation was performed. In contrast to this, two cases were referred to me in my private practice for operation with the expectation that immediate exploration of the apex would be performed. Both had sixth nerve paralysis, severe head symptoms and profuse discharge, and one a partial seventh nerve paralysis as well. As a preliminary procedure the mastoid cells that had not been removed from around the semicircular canals and deep in the base of the pyramid at the first operation were exenterated without thought of exploring the apex at that time unless we were led there. Both cases showed immediate improvement. No further operation was required and rapid recovery followed the completed simple mastoidectomy. This has happened often enough in my experience to make me feel justified in doing nothing more radical in such cases until this conservative measure has been tried. The simple mastoidectomy has been spoken of as being adequate for certain types of mastoiditis and the complete simple mastoidectomy for others. This is not a good distinction to make for it may lead in some cases to the development of petrositis. It is well to emphasize that every simple mastoidectomy should be as complete as the operator is able to make it in order to prevent as far as possible the development later of complications from infection left in the deep cells not opened. The fact that many mastoid wounds heal without the removal of the deeper cells does not justify leaving them to jeopardize even a small percentage of cases when they can be so easily removed at the primary operation.

\*Read before the Eye, Ear, Nose and Throat Section, Connecticut State Medical Society, Westport, September, 1937.

The more generally this doctrine is followed the less occasion there will be for the discussion of elaborate operations for suppuration of the petrous apex. It is, therefore, important to call attention to this simple fact in any discussion of this topic. I think it is better for us at this time to continue to emphasize the importance of thorough mastoid surgery than it is to call further attention to operations for exploration of the apex that have been minutely described elsewhere. Previous to this comparatively recent agitation over petrositis a similar disturbance occurred some years ago with regard to labyrinthitis. Operations on the labyrinth now compared to the number performed ten years ago are few. At that time cases of acute diffuse labyrinthitis were being operated on that might better have been left alone until protective barriers had formed to prevent extension of the infection to the meninges. Now at this time radical mastoid operations are being performed on cases of acute mastoiditis with good hearing in order to find a lead to the apex through the inner wall of the tympanum even before the deep cells of the mastoid region have been examined and exenterated.

Every case of middle ear and mastoid suppuration is a case unto itself and no hard and fast rule can be laid down for the care of all of them, but any case that continues to have headache and pain in the temporal region after a simple mastoidectomy had better have the mastoid reopened promptly and particular attention paid to the deep cells posterior to the tympanum.

The aditus should be widened and the cells in that region removed down to the superior semi-circular canal. Particular attention should be paid also to those cells that lie deep in the base of the pyramid behind and internal to the facial nerve and between the posterior semi-circular canal and the jugular bulb. If then with a wide open wound this fails to give relief the tympanum can be justifiably sacrificed as a second step. Should this also prove unsuccessful the more radical and dangerous exploration of the apex may then be attempted.

Exceptional cases may demand drastic measures from the start, but in most, I think, the steps indicated will be the safer and more satisfactory procedure to follow.

127 East 62nd Street.

## CONTRACT PRACTICE BY THE MUNICIPALITY

From the standpoint of public policy, contract practice by the municipality inevitably establishes a political control over the medical practice it embraces; it establishes a type of service radically different and divorced from the private service available to the general population; it adulterates the direct legal liability of doctor to patient, the main protection of the individual against incompetence and negligence; it promotes pauperization of the people by its natural tendency to perpetuate political jobs and extend "free" services.

From the standpoint of medical policy, contract practice by the municipality cheapens medical service, viewing it as a commodity; it gives free rein to malingering, and produces a growing demand for attention to trivial conditions at the expense of adequate attention to serious conditions. It ignores the fact that free choice of physician has definite therapeutic value. In addition, the tendency is to give as little care as possible because of the lack of incentive. while in times of epidemic or more severe economic stress, the difficulty of obtaining proper medical care is further increased. Any economy claimed for this contract system is largely a mirage, since there is inevitably over-hospitalization. And finally, the great majority of physicians will not participate in it. In other words, contract practice by the municipality is thoroughly inimical and detrimental to the very public welfare it seeks to improve.

From the ethical standpoint, it is directly incompatible with the primary ethical principles which have maintained the professional status of the physicians, improved the effectiveness of his service, and protected the public against charlatany, incompetence and negligence, and participation compels the physician to violate his oath to uphold these ethical provisions.—*Westchester Med. Bull.*, April, 1938.

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**Upsher Smith's  
offer still holds**

**See Page 11**



# The Country Doctor in Turkey

D. M. ROGERS, M.D., Talas, Kayseri, Turkey

Turkey has been advancing by rapid strides under the present regime in the development of its natural and human resources. New centers of culture and commerce have sprung up, flinging out a network of transportation and communication to integrate the country. The organization of public health and medical administration has been carried farther in this country, in some respects, than it has in the United States. Nonetheless, a great proportion of the nation's population remains essentially rural and, for the present, out of reach of these improvements. This large field of rural medicine is being pioneered by a few American doctors. One of these men operates an outpatient clinic in the village of Talas, which lies near the geographic center of the country. The following glimpses of such a country doctor's life were obtained during a visit there.

. . . An alarm clock rang imperiously for a moment in the dark. Five-thirty A.M. Another clinic day had begun. In the clinic five or six people are waiting. Three arrived on foot and donkey back from a village twelve hours' journey distant the night before; they could find no place to stay in town, so they quartered their animals in the stable below and spent the night on the waiting room floor.

One is an infant two years old, with a distended, tympanitic abdomen, a pinched face, and spidery limbs. He has severe diarrhea. How long has he been sick?—"Since the snow melted,"—about nine months. The baby obliged by furnishing a stool for examination. It consisted almost exclusively of undigested bulgur, coarse cracked wheat. Since his mother's milk dried up when the child was a year old, he had been fed exclusively on half-cooked bulgur and a thick soup made of scorched flour and water. The child is given the first dose of cod liver oil, the mother is given explicit directions on an appropriate diet.

After treating the early arrivals, the doctor hurries up to the house for breakfast. By eight o'clock the waiting room is full. If he is lucky,

the doctor can get away for lunch at one, but often a tray lunch is served for him on the fluoroscopy table where he can snatch a mouthful now and then.

By the middle of the afternoon when the morning's patients have all been seen, there are usually a few calls to be made in Talas or one of the outlying villages. He is off on horseback with his kit on his shoulder to make the rounds. The relative isolation of each village renders it distinctive in dress and mannerisms. One, for instance, is unique in the custom that the natives all retire naked, whereas common practice is to wear all one's clothes to bed at night, and to "dress up" when bedridden.

Childish curiosity, however, is naturally a universal trait. The doctor and his horse are old familiars, which invariably attract a concourse of small boys and a mongrel throng of dogs. As the word of his arrival spreads, adults seep out of houses and byways to join the following. If there is no door to bolt in their faces, a member of the patient's family is deputed to hold the crowd at bay to insure the doctor privacy; that is, the patient is examined in the presence of only the five or ten men, women, and children who live in the household. Relatives frequently raise their families in adjoining houses with a common courtyard and outside door. Each house consists of a room or two; to conserve fuel they all spend the winter days around one fire, burning in a pit in the center of the room.

Many village trips yield scenes worthy of Rembrandt. We were called, in one case, to see an old woman bedridden for six weeks with a painful swelling on the dorsum of the leg above the knee. She was lying over the covered fire-pit wrapped in dingy red blankets, with a black scarf swathed about her hennaed head. A cluster of dirty rags was peeled off her emaciated leg, revealing a soft tumor the size of a grapefruit, suggesting an accumulation of pus. As the doctor produced a syringe and needle, the other women knelt around the patient and held her hands, murmuring words of comfort. A tinned copper pot was brought as a pus basin, the

children shooed away. The dim light that filtered through a smoky, barred hole in the wall merely accentuated the darkness. A man lit an oil lamp and held it over the doctor's shoulder so that the tin reflector cast a yellow light on the thin leg brown with iodine, and the anxious, half-veiled faces of the women. Acupuncture yielded a few hundred cc. of pus; the cavity was irrigated with dilute Dakin's solution. The spectators joined in pious thanksgiving at the sight of this concrete evidence of a cure, and renewed their assurances to the patient.

During this procedure, the operator ignored the friendly cat which hopped up for a moment on the patient's chest, and a couple of sheep that were driven reluctantly through the room behind his back into the stable part of the cave at the rear.

Now and then the doctor is spectacularly rewarded for his village trips by the knowledge that without him a case would have inevitably ended fatally. In this land where manure is a staple domestic article for fuel and fertilizer, tetanus is a common disease. A villager asked the doctor to see his boy on one occasion because the lad had been suffering from a stomach-ache for four days. "Stomach-ache" was his description of one symptom of a full-blown case of tetanus. Thanks to rigorous antiserum therapy and the usual measure of luck, the boy recovered.

It was luck that we took the car to a more distant village one day. The road can be compared only to a shell-torn No Man's Land,—through ditches and streams and over boulders, with an occasional detour through plowed fields around impassable obstacles. We heard that the patient we were going to see had a bad headache; we discovered she also had a poker back, a fever of 104°, p.o., and a positive Kernig sign. Our little touring car was made to shift for an ambulance with pillows and blankets. The patient could not sit down, but somehow her legs were folded up and she was leaned like a board against a heap of pillows in the back seat. She scarcely uttered a sound as we bumped and wrenched over the hills to the hospital. The fifteen-mile trip took two hours, but it saved her life. The diagnosis of epidemic meningitis was confirmed, and she recovered under serum therapy.

The close contact between members of a household, the intimate community life of each village, and the relative isolation of the villages from each

other is reflected in the problems of rural public health. Pneumonia tends to assume mildly epidemic proportions when it starts. Inasmuch as serum is not available for treatment outside of municipal centers, bacteriological study has not been made; but the course is not typical of a pneumococcus infection as we see it in the United States, and the distribution is almost always patchy, scattered throughout one or both lungs.

Infectious diseases not only become endemic in a village, but characteristic of it. Thus a steady trickle of diphtheria cases has been coming from one for six months, although none has been seen from other villages. Every summer another village supplies us with cases of so-called "summer diarrhea" in children. Another is unique in its contribution of early luetic lesions of the mouth and nasopharynx. The probable explanation is the common source of water for the community; in the market-place stands a roofed stone wall pierced by a hole through which a small stream emerges over a grooved stone. The structure was erected by some good Moslem as a pious deed. Securely chained to the wall is a heavy iron dipper.

The national Department of Health is conducting an energetic campaign against venereal disease and malaria as two problems of nationwide extent and maximum public health significance. The former seems to be a recent development. Prior to the Great War it was relatively uncommon, but following the tides of armies across the country it has flared up and spread like a prairie fire. Consequently the present government, inaugurated after the War, was faced at its inception with the problem of this nationwide social disease which, despite its prevalence in other civilized countries, had not previously existed here on this scale. The Health Department, profiting by the experience of other nations, has adopted the measures elsewhere standardized, slightly modified to meet the circumstances.

The Malaria Commission is organized as a unit in the Health Department. It is attacking its problem on three fronts. Greatest progress has been made in draining, filling in, or spraying swampy areas; government doctors make periodic visits to every school in the country to examine the students and teachers for malaria and dispense quinine free; through them as well



as other channels literature on epidemiology, sequelae, and treatment of the disease is disseminated among the people.

This vigorous program has practically wiped out malaria in many districts where its incidence used to be nearly 100 per cent. In this vicinity the work has not yet been completed; and if malaria and venereal disease are not the first two on the list, (syphilis and gonorrhea in one classification), they rank among the top four in incidence in village patients\*. The other two are tuberculosis and heart disease. If deficiency syndromes were labeled as disease entities, they would place near the top; but it is difficult here to separate them from each other or from the chief complaint. Ignorance of hygiene, if not stark poverty, produces a mixed picture in most of these patients which is just an obligato to the major affection. For example, many patients with other complaints are seen to have bleary, inflamed eyes producing an excessive lacrimal and serous discharge. Sometimes secondary infection has already set in, producing episcleritis and corneal ulcers. The incidence of this non-descript conjunctivitis has been reduced about 80% among the children of Talas by the daily gratuitous administration through the winter of cod liver oil.

This venture into rural medicine in Turkey, like any new departure, must leave much undone. Yet this beginning has brought relief to many otherwise beyond the reach of medical aid. Furthermore, this clinic forms an outpost to disseminate education on hygiene and to cooperate with the government's expanding program of public health. This work is a great challenge to a man with imagination. And like virtue, the work is its own reward.

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## PSYCHIATRY AND THE CRIMINAL LAW

My opinion humbly offered for what it is worth is that the solution of the whole problem of psychiatrist vs. the criminal is to turn the erring child into useful paths before he gets into criminal ways — "to substitute something else for maliciousness and idleness" and I most respectfully propose for psychiatry a concentrated and energetic attack upon 'Juvenile Delinquency'."

Justice Chas. A. Walsh,

—*R. I. Med. Jour.*, May, 1938

## COMING MEETINGS

Connecticut State Medical Society, Hotel Griswold, Groton, June 1-2.

Rhode Island Medical Society, Providence, June 1-2.

American Psychiatric Association, San Francisco, June 6-10.

American Association of Industrial Physicians and Surgeons, Chicago, Ill., June 6-9.

Association for the Study of Allergy, San Francisco, June 9-10.

American Dermatological Association, Del Monte, Calif., June 9-11.

American Academy of Pediatrics, Del Monte, Calif., June 9-11.

American Ophthalmological Society, San Francisco, June 9-11.

American Pediatric Society, Bolton Landing, N. Y., June 9-11.

American Society of Clinical Pathologists, San Francisco, June 9-11.

American Heart Association, San Francisco, June 10-11.

American Proctologic Society, San Francisco, June 11-13.

American Medical Women's Association, San Francisco, June 12-14.

American Medical Association, San Francisco, June 13-17.

American Rheumatism Association, San Francisco, June 13.

American Radium Society, San Francisco, June 13-14.

Association for the Study of Internal Secretions, San Francisco, June 13-14.

American Academy of Tuberculosis Physicians, San Francisco, June 17-18.

National Tuberculosis Association, Los Angeles, June 20-23.

American Physicians' Art Association, First National Exhibition, San Francisco Museum of Art, San Francisco, June, 1938.

Maine Medical Association, Malvern Hotel, Bar Harbor, June 26-28.

American Urological Association, Quebec, Canada, June 27-30.

Medical Library Association, Boston, June 28-30.

Tenth International Medical Congress for Psychotherapy. Balliol College, Oxford, England, July 29-August 2.

Southeastern Dermatological Association, Charlotte, N. C., September, 1938.

American College of Surgeons, New York City, October 17-21.

American Public Health Association, Kansas City, Mo., October 25-28.

American Urological Association, Southeastern Branch, Louisville, Ky., December 2-3.

\*Ascaris and intestinal worms are nearly universal, but are not classified due to their low pathogenicity here.

# Presidents' Proscenium

## Greetings To Connecticut

WILLIAM G. HERRMAN, M.D., President  
Medical Society of New Jersey

At the invitation of your Editor I am this month extending greetings from The Medical Society of New Jersey to the fellow members of our profession residing in the State of Connecticut.

It may be of interest to you to know that The Medical Society of New Jersey is the oldest organized body of physicians in the United States. It was founded in the year 1766 when New Jersey was still a colony of Great Britain; hence our name does not include the word "State". We are still officially known as The Medical Society of New Jersey. Our membership at the present time consists of 3800 physicians out of a total medical population of the State of approximately 5500. Our Central Offices are in the City of Trenton, which is also the State Capitol. We have a full-time Executive Officer who is a graduate physician especially trained in pediatrics and public health. We also have a physician who is full-time Editor. Assisting them we have an office force of five people. Our annual budget is approximately seventy thousand dollars.

We are in active and hearty cooperation throughout the year with the federal government insofar as the social security act pertains to health measures; with state and local departments of health in every phase of preventive medicine; and also in many phases of curative medicine, with the department of Institutions and Agencies and the New Jersey Hospital Association.

Through the combined activities of our Committees on Maternal and Child Health with the State Board of Health, New Jersey for the year 1937 shows one of the lowest infant and maternal mortality percentages of the states in the union.

We have in addition twenty-five other com-

mittees active in various phases of public health, such as tuberculosis, cancer control, crippled children, and mental hygiene. Other committees are grouped under medical practice to consider and study contract practice, hospital relationships, auxiliary medical services such as radiology, pathology and anesthesia; medical care of the indigent, cooperation with the pharmacists in pharmaceutical problems, workmen's compensation, and nursing and nursing education. There are, of course, active committees interested in public relations and legislation. We have an active woman's auxiliary working in most of our counties and we maintain close cooperation with them.

We are extremely glad this year to have two official representatives from your State Society attending our 172nd annual meeting — Dr. Oliver L. Stringfield and Dr. J. R. Miller. We hope that there will be increased cordial relationships between the Connecticut State Medical Society and The Medical Society of New Jersey. In these days when no man knoweth what the morrow will bring forth, when we are going through a changing world in which many of our accepted ideas are being constantly challenged, and when that which was good and lawful yesterday may be tomorrow illegal, it is more than ever necessary that those of kindred minds, ideals, and efforts be coordinated.

Psychologists tell us that all men may be divided roughly into two classifications — those who are subjective and those who are objective. Those who are subjective minded are naturally inclined towards occupations which call for a high degree of individual effort and individual skill and attainment such as engineering, medicine, writing, painting, and sculpture. In these



pursuits individuality is uppermost. The worker does his best work either by himself or upon his own responsibility. The objective worker is one who coordinates efforts of others and does his best work in cooperation with others. It is he who becomes the executive and the political leader. The one likes to close himself away from the crowd while the other seeks the crowd. In business and in industry the highly technical worker will be the subordinate and the employee of him who is objective minded. Of course, there are many who are partly subjective and partly objective with one or the other predominating, while some few will be entirely subjective and others entirely objective.

If the psychologists are right then it is easy to understand why the physician is so often misunderstood by the public, why he is so individualistic that it is difficult to group him with others of like mind and attainments. Thus we see some of the difficulties of medical organization and why it is so hard in organization work to get medical men to see eye to eye; but we must be wary in these changing times that, since the subjective group seems to dominate in our profession, we do not become technical subordinates of laymen who are objective minded.

I think my readers will be able to see the application of my remarks in their day by day life in the hospital and in medical society activities.

A youthful caller upon my daughter, a cadet at Annapolis who, by the way, happens to come from Connecticut, said that his uncle and his brother were physicians. He had, therefore, been in medical circles many times, but he had yet to attend a gathering of physicians where he had heard any talk but shop. They were not interested in medical economies, local politics, or world politics. His observation was as follows: "At Annapolis we must learn navigation, and gunnery but we must also study diplomacy, world politics, and economics; otherwise we could not become executive officers in the Navy."

The old fashioned family physician was a leader in his community in other fields besides medicine. He was often president of the board of education or president of a bank. To him people came for family counsel and business ad-

vice. He was friend and counsel not only when they were sick but when they were well. After all most people are sick only a small portion of their lifetime, and if we are to influence the public for the preservation of that which we believe to be for their best interests as well as our own, we must be of value to them when they are in health as well as in sickness. It therefore behooves us once again to take our place in the community to show our leadership in education, in civil government, and in other phases of community activities that I know will occur to you. Without this the future of medicine is uncertain. It certainly will be in the hands of the objective minded who are executives in business and leaders in government.

I cannot close these brief remarks without saying that Connecticut is almost a home state to me. I attended the Hartford public high school; I interned for a time at a Hartford hospital; I served overseas with the Yale Mobile Unit; my wife was raised in Hartford, and my oldest child was born there. The names of many prominent physicians come to my mind instantly, such names as Austin Flint, A. M. Rowley, J. E. Root, A. C. Heublein, T. N. Hepburn, D. J. Roberts, and many others both present and past.

With every good wish for the continuation of your active Society and with the knowledge that the science of medicine as exemplified by the American profession will be carried to even greater heights in the hands of your distinguished members, I am

Faternally yours,  
William G. Herrman, M.D.

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## GERIATRICS AS A MODERN SPECIALTY

This is the subject of a paper recently published in the Texas State Journal of Medicine and condensed for the March, 1938, issue of Digest of Treatment. Geriatrics is said to be the modern challenge to the medical profession since the problems of senescence lend themselves quite well to specialization. The author encourages his readers to persuade men and women to take it easy as they approach the sixth decade of life. Relaxation from that eternal drive will avoid premature senescence.

# Association of Connecticut Tumor Clinics

## A Practical Consideration of Cancer<sup>\*</sup>

WILLIAM CARPENTER MacCARTY, SR., M.D., Rochester, Minn.

The cases and discussions presented by Drs. Whalen, Buckley, and Resnisky must have been prepared with some telepathic concept of the ideas I wished to present this afternoon. While these gentlemen were speaking I noted seven points of interest: (1) the high percentage of inoperability of cancer of the larynx, (2) the frequency with which the physician had failed to make the correct diagnosis, it often being overshadowed by signs and symptoms pointing elsewhere, (3) the rarity of the typical text-book picture until late in the disease, (4) the clinical falsity of pathologic diagnoses of benignancy, (5) the ineffectiveness and clinical inaccuracy of pathologic grading of tumors, (6) the confusion and unfairness coincident to comparing the results of surgical and radiation treatments, (7) and the absolute necessity for better education of those physicians who see but do not recognize cancer in a curable state and wait for classical signs and symptoms before appreciating the seriousness of the condition.

The art of medicine, like all other arts, has suffered, in recent years, from and been confused by the rapid discovery of small details of both facts and technique. Rarely have general themes been discovered and crystallized into some sort of efficient system of thinking. Practitioners, teachers, and students have, in my opinion, been lost in a wilderness of immature, prematurely expressed, and not thoroughly digested medical data.

Perhaps I can bring out some of these points suggestively by making some remarks on the following subjects: What is cancer? What is the cause of cancer? What confusion lies in our language for cancers and allied conditions? Has

there been a new opportunity to revamp the concepts of pathology of the last century? Is there a basis for a newer practical classification of neoplasms? What is the present status of our efficiency in handling cancer? What are the facts relative to prognosis? And what is a practical approach to the problem now that no institution for cancer research has given us a specific diagnostic, curative, or prophylactic means of handling the problem?

These are all questions worthy of longer attention than we have time for this afternoon. Nevertheless there are some practical phases of them we can visualize in a short time.

Cancer is a destructive and usually fatal disease characterized by the rapid overgrowth and migration of the reserve cells of a specific tissue. If we study the structural and functional units of the mammary gland we find they are minute dilated blind ends of tubules. They resemble small flasks lined by two layers of cells — an inner layer of columnar secretory cells and an outer layer of oval cells from which the secretory cells are regenerated. Something destroys the secretory cells slowly, the cells of the outer row become hypertrophic and then hyperplastic. There is a time relationship between the rate of hyperplasia and the rate of differentiation. This relationship determines whether the new cells will become normal secretory cells to replace those which have been destroyed, or whether they continue the overgrowth and slowly become differentiated to form a relatively benign growth or fail to differentiate and migrate to other regions producing a malignant or cancerous condition. These are the essential histologic facts with their behavioristic interpretation. The cause or causes of these phenomena is some-

<sup>\*</sup>Abstract of talk given before the Association, Hartford, Connecticut, February 24, 1938.



thing else. If you read history and examine the usual attitude of mind of our profession you will learn that we have usually sought single causes and single cures for all diseases forgetting the fact that most, if not all, biological phenomena are resultants of many factors and never due to a single cause. Not until we, in the profession, get the engineer's attitude of mind and way of seeing, thinking and criticizing will we be able to get a comprehensive and correct concept of the causes of cancer and related diseases. The following table will give some idea of the possible factors, no one of which alone could probably produce the disease.

COMPOSITE OF FACTORS IN PRODUCTION OF CANCER OF BREAST

- I. Intra-acinic factors
  - Exogenous
    - 1. Phagocytic parasites
    - 2. Chemicals of:
      - Parasitic origin
        - a. From living parasites
        - b. From dead parasites
      - Nonparasitic origin
  - Endogenous
    - 1. Chemicals from
      - a. Disintegrating native cells
      - b. Stagnant products of living native cells
- II. Extra-acinic factors
  - Local starvation of native cells by:
    - 1. Lymphocytic infiltration
    - 2. Fibrosis
    - 3. Hyalinization
    - 4. Hormonal deficiency
    - 5. Hormonal superfluity
    - 6. General anemia and, or,
    - 7. Heredity: structure
      - function
      - behavior (normal and abnormal)

III. Time relation factor

And now let us look at the language we speak when talking about the various benign and malignant new growths. The following list will give you some idea of the great number of names that have been attached to the various neoplasms.

TERMINOLOGY OF NEOPLASMS IN LITERATURE

Adenoma.....	61
Adamantinoma.....	9
Angioma.....	58
Blastoma.....	27
Cancer.....	17
Carcinoma.....	107
Chloroma.....	4
Chondroma.....	12

Cyst.....	24
Cytoma.....	12
Cystoma.....	18
Elephantiasis.....	6
Endothelioma.....	50
Epithelioma.....	32
Fibroma.....	55
Glioma.....	25
Lipoma.....	24
Lymphoma.....	15
Myoma.....	33
Myxoma.....	23
Neuroma.....	25
Nevus.....	25
Osteoma.....	14
Polyp.....	20
Sarcoma.....	158
Teratoma.....	8
Tumor.....	14
Xanthoma.....	15
Miscellaneous.....	248
Total.....	1,139

You will see there are one hundred and seven names for carcinoma alone and one hundred and fifty-eight for sarcoma, and fifty for epithelioma. No two text-books use the same language. Every mathematician, physicist, engineer, and the majority of high school students all over the earth know what a triangle or an octagon or a parallelogram is but no two pathologists would probably give you exactly the same definitions for carcinoma, epithelioma or sarcoma and I am sure no pathologist would know all the names in the list and still he will have to know them — if possible — if he be expected to read all the literature intelligently. Briefly, the language is meaningless, chaotic, confusing, and very far from practical. Most of our text-book and teaching concepts of pathology date back to the early period of Virchow who presented his cellular pathology in 1858 and his ideas of tumors in 1863. These have been accepted. They were a great step in advance but to the opportunity he had at the autopsy table must be added another — that given by surgical exploration of living tissues. The picture is quite different if the tissues are not permitted to lie around, disintegrate and become embedded in paraffin or celloidin. The technical treatment used by pathologists is very strenuous for delicate cells; they are no longer cells; they are mummies and teach us just about as much of life itself and its behavior. The surgical opportunity did not arise over night; there were necessarily the

bacteriological (1857-1900), the roentgenological (1896-1915) and the surgical technical periods (1880-1915) before any pathologist could avail himself of the new opportunity not given to Virchow. These dates are only approximate but they show why cytopathology had to wait to evolve out of the cellular pathology of Virchow and his many worthy successors.

All neoplasms, whether in human beings, plants or any other type of living multicellular being may be placed in one of three main groups, each of which is cytologically, biologically and clinically very definite.

I. Cytomas — those neoplasms composed of adult cells with normal tissue arrangement.

II. Blastomas — those composed of cells normally or nearly normally arranged but having a morphology of malignant regenerative cells.

III. Problastomas — those composed of cells of the malignant regenerative type not arranged in any fashion approaching that of any normal tissue.

Perhaps for completeness there should be a fourth group in which more than one tissue is involved as sometimes occurs. Such are the polycytomas and polyblastomas.

If we must describe these more in detail for academic and research pathologists it is quite simple to add well-known prefixes to the cytomas, blastomas, polycytomas and polyblastomas but not the problastomas (see definition).

#### CLASSIFICATION FOR NEOPLASMS

I		II	
adeno-	{ cytomas (benign)	adeno-	{ blastomas (malignant)
chondro-		chondro-	
endothelio-		endothelio-	
epithelio-		epithelio-	
fibro-		fibro-	
glio-		glio-	
lipo-		lipo-	
lympho-		lympho-	
melano-		melano-	
myo-		myo-	
neuro-	neuro-		
osteo-		osteo-	
III Problastomas (very malignant)			

Many neoplasms seen by consultants are hopeless. Thus from 30 to 50 per cent of the cancers of the breast, 42 per cent of large intestinal cancers, 75 per cent of gastric cancers, 20 per cent of cervical uterine cancers, and 25 per cent of cancers of the lip are inoperable when first seen in the Mayo Clinic. This is a tragic condition and

all the blame should not be placed on laymen. We, in our offices, and dispensaries are seeing the early stages of cancer without realizing it. Such early stages do not give the text-book pictures of cancer. They are rarely seen by autopsy pathologists. Early cancers do not kill their hosts. If treated at all they are treated for something else.

Sixty-two per cent of the operable cancers of the breast, 38 per cent of those of the large intestine and 53.5 per cent of those of the stomach have lymph nodal involvement. Their average sizes are respectively 3.2 cm., 6.4 cm., and 6.1 cm. in diameter. Only 29 per cent of the cancers of the breast, 2.2 per cent of the cancers of the large intestine and 6 per cent of the gastric cancers are the size of a quarter dollar or under. Certainly all of the cancers were once smaller than when recognized. About three years ago I reported one hundred gastric cancers all under 2.5 cm. in diameter. None of these had clinical signs or symptoms that could be recognized as cancer; they might have been simple gastric ulcers, duodenal ulcers, cholecystitis, chronic appendicitis and in some instances even brain tumors or tertiary syphilis. They might have been none of these. They were discovered only by X-ray examination, surgical exploration, and microscopic study.

As I suggested in the beginning of this talk we are often misled or confused by immature scientific facts. This is especially true in the clinical application of studies in the grading of tumors by pathologists. Such pathologists have been perfectly sincere in their efforts to determine what factors play negative or positive rôles in the behavior of new growths. Practically all have made perfectly legitimate attempts to study these factors. But just as soon as any set of these factors is published some progressive and possibly aggressive clinician attempts to give full application prematurely.

There are many factors which govern prognosis. All of these must be taken into consideration. I list them as follows:

1. The presence or absence of glandular involvement and distant metastasis.
2. Fixation of growth.
3. Location.
4. Renal efficiency.
5. Cardiac efficiency.
6. Anemia.



7. Size of growth.
8. Age.
9. Direction of growth.
10. Loss of weight.
11. Cellular differentiation.
12. Lymphocytic infiltration.
13. Fibrosis.
14. Hyalinization.
15. Duration of disease.

Personally I would rather have a cancer of the sigmoid or rectum 3 or 4 cm. in diameter than have a benign tumor 5 mm. in diameter in my third or fourth ventricle. I would also like to have my cancer grow toward the lumen of my gastro-intestinal tract rather than seek its way through the wall. I would prefer to have no lymph nodal involvement regardless of size or location. I want a good heart, a perfect pair of lungs and a healthy pair of kidneys. I would rather have my cancer wobble around than have it glued to some vital organ. I hope it doesn't come until I am in the fibrotic age of seventy or eighty. If it can be removed without killing me I would like to have it taken out and put in a bottle with or without being graded for scientific purposes. As Dr. William Mayo has always said, "A hopeful prognosis to the patient and a guarded prognosis to the relatives."

In conclusion may I congratulate you on the success of your Association and commend its efforts in the only way to handle the problem of cancer. We know enough about this disease to eliminate it almost completely. It is the general practitioner who sees patients first who must be taught to recognize the possibility of cancer in conditions that may seem trivial.

#### IN OBSERVANCE OF SOCIAL HYGIENE DAY

The following meetings and activities were reported to the Venereal Disease Control Committee:

##### Hartford

- (1) Radio talk  
The Public Health Control of Syphilis  
Assistant Surgeon-General R. A. Vonderlehr  
U. S. P. H. Service,  
and  
Dr. Daniel E. Shea  
Hartford Health Department
- (2) Talk  
Recent Progress in the Control of Syphilis  
At West Middle High School, Hartford, by  
Assistant Surgeon-General Vonderlehr
- (3) Press releases

##### Middletown

- Mass meeting — Y. M. C. A.
- (1) Addressed by Dr. M. L. Palmieri  
Health Officer of Middletown
  - (2) Lecture to Young Men's Club—Central School, by  
Dr. M. L. Palmieri
  - (3) Press releases

##### New Haven

- (1) Luncheon meeting — representative citizens
  - (a) Announcement of formation of New Haven Social Hygiene Association, with an executive secretary, sponsored by the New Haven Foundation and the New Haven Department of Health.
  - (b) Addresses by Prof. C. E. A. Winslow, Professor of Public Health, Yale University, and Dr. M. J. Strauss, Director of Bureau of Venereal Disease Control, New Haven Department of Health.
- (2) 18 talks by Health Department staff to various groups.
- (3) Radio transcription, Surgeon - General Parran speaking, auspices of Y. M. C. A.
- (4) 4 Poster exhibits throughout city
- (5) Press releases

##### Waterbury

- (1) Meeting — Y. M. C. A.
- (2) Press releases



#### CORRECTION

In the article entitled "The Treatment of Early Syphilis" by John H. Stokes, M. D., Philadelphia, Pennsylvania which appeared in the April 1933 issue of this Journal, the following correction should be noted. In section 11 substitute:

The intervals between injections are one week unless otherwise stated.

000 in 10 days followed by:

	BWR	BWR	BWR	BWR	CSF
0000000	00000000	00000000	000000		BWR
XXXXXX	XXXXXX	XXXXXX	XXXXXXXXXX	8 weeks rest	
XXXXXXXXXX	8 weeks rest	XXXXXXXXXX	8 weeks rest	XXXXXXXXXX,	then

two years observation with blood tests quarterly.

# State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

## Full Time Departments of Health for the Towns of Connecticut

FRANKLIN M. FOOTE, M.D.

The medical profession of Connecticut always has led in movements which aim to give greater protection for the public health. Active in the organization of the state department of health and of many voluntary health agencies, the current interest of physicians in the development of better local health administration is significant particularly in the light of discussions which began in the State Medical Society nearly thirty years ago. In a paper which pointed out the health problems in the smaller towns of our state<sup>5</sup>, Guild indicated that public health was a specialty of the practice of medicine requiring definite qualifications, — "If we could convince our legislators of the necessity of men properly trained for the position of health officers in our country towns, whose salaries should be commensurate with the responsibilities required, we might show greater results in the way of sanitation".

Commenting on this paper, Blumer called attention to the lack of adequate teaching facilities in the United States at the time by which doctors of medicine could receive the advanced training necessary for executive health posts. He went on to stress the importance of this training, telling of the standards in England and in Canada where a degree in public health is essential before a man can occupy the position of health officer.

At around this same time many states, in which the county was the prominent local unit of government, began the development of full-time county departments of health which have proved to give better service in the control of acute communicable disease, tuberculosis, syphilis, in the supervision of water supplies, sewage disposal, inspection of eating places and dairies, as well as in coordinating the general community

program for the promotion of maternal and child health. Along with this development to give more complete health service to rural areas, there has been a great improvement in the teaching facilities covering the various fields of preventive medicine and public health. This advanced training is now offered to physicians at such universities as Columbia, Harvard, Johns Hopkins, Michigan, and Yale.

The more progressive Connecticut cities have established departments of health under the direction of a physician who devotes his entire time to the work, and the administration of some of these departments has gained national recognition through health conservation contests of the United States Chamber of Commerce.

Because many New England towns and cities were too small alone to secure the full-time services of trained personnel, in certain areas towns have joined together on a district basis<sup>3</sup>. This combination of towns, recommended by Chapin<sup>2</sup> following his survey of state health organizations in 1916, has been successful and has spread fairly rapidly in Maine, Massachusetts, Rhode Island, and New York<sup>10</sup>. In Connecticut, the Committee on Public Health Education of the State Medical Society<sup>8</sup> pointed to the need for full-time medical health officers to guide lay organizations interested in health work, and Mead<sup>6</sup> declared, "The fitness of a candidate for appointment as health officer, therefore, should not be determined by the fact that he has been a successful practitioner, or a good bacteriologist, or a politician, but by the fact that he understands the science of public health administration, the key to which is the disease carrier. No longer may the health officer give his time to the fumigation of houses, to the removal of rubbish or garbage,



or to the disposal of dead dogs on the highway, but to the disease-breeders and carriers, whether biped, quadruped, or invertebrate . . . Fortunately, the new health bill provides for the consolidation of cities, boroughs, or towns, for the purpose of forming sanitary districts under one health officer".

In 1935 the Connecticut General Assembly amended the law enabling the formation of sanitary or health districts to provide for local control over the work through a district board composed of two representatives from each town participating, in addition to the county health officer of any county involved. This board will draw up the budget, the local cost being allocated to the towns in proportion to the grand lists, and will select the health officer who must be a doctor of medicine qualified for the position either by advanced training or by experience in public health. The Connecticut State Medical Society voted approval to this law<sup>7</sup> and recommended procedure in accordance with its provisions. The State Department of Health has set aside funds which are to be used to bear half of the expense of operating such a district, not exceeding \$6000 in any one local unit.

The actual organization of a district department of health depends upon the individuals already engaged in health work in the towns concerned, whether employed by official or voluntary agencies. In general, in addition to a full-time medical health officer, there should be one sanitary inspector or sanitary engineer for each 20,000 population in order to supervise the various aspects of environmental sanitation which is necessary for the control of enteric disease. Although most communities in Connecticut have public health nurses, the average for the state being one to 3,100 population, there are many towns where the recommended standard of one public health nurse to 2,000 population has not been attained. The duties of the full-time health officer are chiefly administrative, epidemiological, and educational. In some districts he may act also as school physician. He serves to coordinate all of the health work in the most effective way possible, basing the program upon the needs as shown by an analysis of the morbidity and mortality rates and he develops the work strictly in accordance with plans of the local medical profession.

Although Connecticut is proud of its health

record, it is felt that further progress in the control of communicable disease can best be brought about by greater educational and epidemiological activities of the local health officer. The need for this is suggested, for example, by the increase in undulant fever during recent years in Connecticut and the increased number of cases of diphtheria which have occurred during the past year. For tuberculosis and syphilis, also, we still have a great problem in finding the cases early so that treatment may be given when it is most effective and before the patient has had the opportunity to spread the infection. The facts that only 154 of 1,508 cases of pulmonary tuberculosis admitted to state sanatoria during a two-year period were in the incipient stage<sup>9</sup> and that only 14 per cent of the 2,333 new cases of syphilis reported in Connecticut in one year were in the primary and secondary stages<sup>11</sup> indicate the urgent need of greater case finding activities, investigation of active cases as to source of infection and contacts, and especially follow-up visits to delinquent and uncooperative cases.

In the field of adult hygiene, medical science has much to offer for the promotion of health and the postponement of death as, for example, in reducing the mortality from cancer. That there are many needless deaths from easily detected external malignancies is shown by figures on carcinoma of the breast in the general hospitals of New Haven. Of 238 admissions with this condition, 147 or 62 per cent already had metastases to the axillary lymph nodes<sup>1</sup> which, of course, gives a serious prognosis. The average period of delay between the appearance of first symptoms and ultimate hospitalization was 14 months. To reduce this period of delay and secure earlier medical treatment, local health authorities should take the lead in activities to make the public "cancer conscious".

Although many of the duties of a health officer are often a matter of law enforcement, the educational side of the work is of far greater importance. A determined effort must be made by authoritative sources to counteract the flood of misinformation which constantly is being foisted on the public through newspapers, magazines, billboards, and radio by the quacks and the nostrum vendors. Graves<sup>4</sup> has said, "our only ethical way of advertising is through our Health Department. Through this Department we are able to enlighten the public as to the many efforts

being carried on for the prevention and cure of disease". We need popular health instruction about the early symptoms of serious illness, the need for prompt diagnosis, the many preventive services and methods of treatment of proved value now in the hands of the family physician. The medical profession stands ready to give this service and the public will seek it when the value is shown. It is a function of the full-time local department of health to bring the two together.

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#### A. M. A. PROGRAM FOR JUNE

Broadcasted each Wednesday from 2 to 2:30 P.M. over the Red Network

##### Using Health Knowledge

June 1. Vacation Plays and Misplays. Making the vacation a real contribution to health and recreation.

June 8. Graduation and Then What? A new phase of life begins at commencement, and health insurance contributes to success.

June 15. What Medicine Offers for Health. Flashes from the American Medical Association meeting at San Francisco, giving highlights of medical progress.

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**Philip Morris & Co.**  
may interest you — Page 17

#### CONNECTICUT OCCUPATIONAL THERAPY SOCIETY MEETING

DATE: June 2, 1938

TIME: 1:45 to 4:00 P.M. (no luncheon)

PLACE: Hotel Griswold, Groton — 4 miles from New London on Eastern Point

#### SIMULTANEOUSLY WITH CONNECTICUT MEDICAL SOCIETY MEETING

##### PROGRAM:

2:00 "Portable Clinics for Crippled Children" by  
Russell V. Fuldner, M.D., Chief, Div. of  
Crippled Children

State Dept. of Health, Hartford

2:45 "Occupational Therapy Work with the Visiting Nurse Society"

by Mrs. G. Gordon Holland, O. T. Reg.  
Philadelphia

The Connecticut Occupational Therapists wish to extend an invitation to the Associate members and our friends to attend this meeting held simultaneously with the Connecticut Medical Society. The Medical Society has generously offered us the use of their assembly hall for these two hours and invited us to attend a Psychiatric Symposium at 4:00 o'clock.

Exhibit space has been provided — adjoining that of the Public Health Department exhibit.

#### THE CONNECTICUT OCCUPATIONAL THERAPY SOCIETY

Mrs. E. L. Holland, Hartford Hospital  
acting secretary pro tem

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#### AMERICAN ASSOCIATION OF INDUSTRIAL PHYSICIANS AND SURGEONS

Preventive medicine will be the keynote of the 23rd annual meeting of the American Association of Industrial Physicians and Surgeons which will be held concurrently with the Midwest conference on Occupational Diseases at the Palmer House in Chicago, June 6th, 7th, 8th and 9th, 1938.

Dr. Edward C. Holmblad, 28 E. Jackson Blvd., Chicago, Chairman of the Program Committee, announces the most interesting program in the history of this organization.

Advance programs of the meeting are available to any doctor interested and will be sent without charge to any practicing physician interested in attending this meeting. The sessions will be open to any practicing physician in accordance with the educational program of the Association to spread the propaganda of preventive medicine and absenteeism of employees.

The very constructive work being conducted by the American Association of Industrial Physicians and Surgeons to co-operate with general practitioners and specialists in not permitting the practice of industrial medicine to interfere with medicine and surgery in general practice is a refreshing thought to everyone in the medical field and this meeting of the Association at the Palmer House should be productive of great good.

For an advance copy of the program or for information on exhibits, address — Mr. A. G. Park, 540 No. Michigan Avenue, Chicago.



# The JOURNAL of The Connecticut State Medical Society

*Owned and Published Monthly by*  
The Connecticut State Medical Society.

Stanley B. Weld, M.D.,	<i>Editor-in-Chief</i> , Hartford
Frank Stafford Jones, M.D.,	Hartford
Charles Mirabile, M.D.,	Hartford
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Herbert Thoms, M.D.,	New Haven

Single Copies, 50 cents — Subscription, \$4 00 per year

**MANUSCRIPTS.**— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

**ILLUSTRATIONS** — Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

**SUBSCRIPTIONS.**— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

**REPRINTS.**— Reprints of papers and obituaries may be obtained from the Editor at cost.

## • Editorials •

### GOLD AND SILVER TO SPARE

This year marks the end of a quarter century for the American College of Surgeons. When it was founded in 1913 it was believed, and rightly, too, that this organization would determine a real hall-mark of surgery and would apply it to the proper individuals throughout the United States. With this end in view the College outlined a plan for first surveying and grading American hospitals before proceeding to the standardization of surgeons. There is no question in the minds of those well informed that the College has done much to improve the standards of our hospitals. There are grave doubts, however, that the present method of surveying and grading hospitals has effectually accomplished its entire purpose in elevating standards. 2,621 hospitals today have been approved and classified as grade "A", a percentage of 73.3.

The standardization of surgeons, originally planned by the College, has not materialized. Many of the so-called approved hospitals, in spite of superior facilities for training the young surgeon, are not even attempting such training. Others of this approved list are not equipped to offer opportunities for training in surgery. The formation of the American Board of Surgery in January, 1937, has aroused the American College of Surgeons to a realization of some of its shortcomings. The College now announces itself as "keenly interested in awakening the hospital to its obligation" in training surgeons. During 1938, in an effort to widen the opportunities for graduate training in surgery, the field representatives when making their regular Hospital Standardization surveys will take particular note of the respects in which hospitals conform or fail to conform to the tentative Minimum Standard for graduate training. A list of hospitals approved by the College for this graduate training is expected to be ready by July of this year. Just how far short has fallen the surveying and grading of hospitals in the past is no secret. This new move on the part of the American College of Surgeons to offer an approved list of hospitals for graduate

training has excellent possibilities if carried out without fear or favor.

Many have asked the question, "What has the American College of Surgeons been doing with its vast income during these twenty-five years?" The annual report for 1937 recently issued reveals the fact that of the twenty-five dollars received as dues from each member 54% is used in ways that actually return some benefit to the member. 46% is spent for administration expenses, capital disbursements, property maintenance, insurance, legal expenses and reserve fund. No part of this is used to swell the endowment fund which at the end of the year 1937 had reached the sizable figure of \$863,052.89. A cash income over expenses of \$71,566.92 with a surplus at the end of the year of \$583,729.20 and general fund assets of \$1,269,271.52, including real estate valued at \$1,071,467.00, are not figures to be lightly passed over or ignored.

The American College of Surgeons has amassed a real wealth in the period of its short existence. It has endeavored to serve the surgeons of this country and is serving them today through its hospital standardization field surveys, whether or not these measure up to the limit of efficiency, through its sectional meetings, its registry of bone sarcoma, its library and its bulletins. We are certain it can be of even greater service to its members. With an increase of cash surplus in 1937 over 1936 of more than \$71,000.00, and with the need for better surveying and more fearless grading of hospitals and the need for more hospitals suitable for special training in surgery, the implication is obvious. If the annual contribution from each member remains at its present figure, it will not be long before a better return on the investment will be demanded by the individual, and included in that should be the privilege of receiving the monthly scientific publication of the College.

The valued contributions of the past quarter century have indubiously been in the direction of steady progress. The future years should hold promise of no less attainment.



### WOMEN IN MEDICINE

One of our members, Kate Campbell Hurd-Mead, M.D., is receiving much favorable comment from her book recently published and entitled "Women in Medicine". The editor of the

Weekly Roster and Medical Digest (Phil.) congratulates the author and advises that "all medical students would do well to read this not only because of the feminine slant but because of the great wealth of historic data it contains not otherwise available in one volume". The New York Times for May 15 contains a review of this book.



### GROUP HOSPITAL INSURANCE

Dr. James C. Sargent, President of the State Medical Society of Wisconsin, in a recent address entitled, "The Challenge to the Medical Profession", expressed his views on group hospital insurance. Because of the agitation in Connecticut on this particular problem at the present time they seem worth recording here. Group hospital insurance, according to this authority, is America's one and only substantial contribution in the field of social experiment along the general lines of sickness care. It is but a groping experiment utterly untested and immature and one that most certainly must be given the benefit of great study and generous refinement if it is not to prove a Frankenstein monster which may well turn upon and destroy us all. It has its defects. It fails miserably in reaching that large mass of people of low income so sorely in need of some such means of help when serious and costly sickness falls. If group hospital insurance does not find some way of reaching this low income class we may wake up some day to find our state governments in the hospital insurance business. Hospital insurance will continue a growing threat to the great number of well equipped and properly manned small town hospitals of America until some way be found to broaden the plan to include all reputable hospitals wherever they may happen to be.

Other serious objections are the matter of furnishing professional services in the X-ray and pathology laboratories with its ill effect on the caliber of the services and on the specialties themselves, the important question of management and control, the necessity of finding some practical way of making it compulsory in order that it may reach those who need it most, some way of insuring that professional services shall remain professional, and some plan for keeping the actual hospital management under the system within the control of the profession where it ought ever to be.



### MORE LIFE

This month's best joke is the action taken in several cities, notably Chicago, and the Bronx district of New York, banning the sale of one issue of *Life*, because that magazine reproduced a number of scenes from the motion picture, "The Birth of a Baby", produced by the American Committee on Maternal Welfare. Some of the sex magazine manufacturers must be laughing themselves to death.

—*O. St. Med. Jour.*, May, 1938.

Connecticut might find occasion to blush at its own prudishness, now that the storm has passed. Our friends in Delaware (*Del. St. Med. Jour.*, April, 1938) feel that *Life* made a mistake but they are charitable enough to thank *Life* for the invaluable publicity it has given to the film.

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### MEDICAL FEES

In an editorial on "Medical Fees" in the *West Virginia Medical Journal* for April, 1938, there is some real food for thought. Apparently the inciting cause for the editorial has been the problem of free immunizations. The health officers believe that they should step in and provide immunization when and if the family physicians fail in their responsibility. If parents in the large moderate income group are to bring their entire families to the physicians for immunization, obviously they cannot pay from two to five dollars per "shot" per capita. Think this over! "Three dollars may be little enough for a typhoid shot or a smallpox vaccination, but that fee is worth nothing if it destroys the demand for private immunization service. Suppose the average man of moderate income has four children whom he wants immunized for smallpox, typhoid and diphtheria. His total cost at the above mentioned fee would be seventy-two dollars. Will he pay it? Not at all. Instead, he will wait until his youngsters enter the public schools when the State will provide such immunizations without cost, if forced to do so."

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### A CAUSE FOR PRIDE

The infant mortality death rate for 1937 in Connecticut was 40.5 per 1,000 living births. In 1901 the same death rate was 138. The number of maternal deaths for 1937 in Connecticut was 65; in 1936 it was 102. The first two months of 1938 show fewer maternal deaths than in the corresponding period for 1937.

### WHAT OUR DOCTORS HAVE TO SAY ABOUT VENEREAL DISEASE CONTROL PROGRAM\*

- I. Upon the educational phase
  - A. Recommendations
    1. Professional education
      - a. More conferences on subject especially adapted for general practitioner.
      - b. Frequent reminders of control program by means of editorials in the journal of the State Medical Society.
      - c. Impress upon the general practitioner the importance of a spinal fluid examination on every case of lues.
      - d. More should be said about extra-genital chancres.
    2. Lay Education
      - a. Educate the public.
      - b. Educate people to "see their family physician."
      - c. Campaign for state-wide bloodtesting.
      - d. Impress upon patients the prognosis of disease with and without treatment; also, the ease and means of spread.
      - e. More publicity by press, profession, and health department.
      - f. Use radio to educate the public.
      - g. Radio publicity not favored. Some other means of publicity should be better.
      - h. Short movies sponsored by the state and exhibited at theaters without advance publicity.
      - i. Education on venereal diseases in all high schools and colleges by competent lecturers — preferably experienced physicians.
  - B. Comments
    1. Publicity by lay U. S. Public Health Service publications best yet. It is making people venereal disease conscious.

\*Data obtained from Venereal Disease Survey by Venereal Disease Subcommittee of Public Health Committee, Conn. State Medical Society.

- II. Upon the medical phase
  - A. Recommendations
    1. Routine Wassermanns.
    2. Routine Wassermanns on all pregnant women.
    3. Cervical smears and cultures upon all female patients.
    4. Kline test on all domestic help — especially colored.
    5. Kline test as part of all insurance examinations.
    6. Thorough examination of all offenders convicted in local courts.
  - B. Comments
    1. Routine Wassermanns disclose cases unsuspected.
- III. Upon administrative phase
  - A. Recommendations
    1. General
      - a. Legalized prostitution under medical and police supervision.
      - b. Attempt prophylactic program along lines of army system of control.
      - c. Systems of Massachusetts and Chicago might be looked into and followed.
      - d. Druggists should be penalized for prescribing for and treating venereal disease cases.
      - e. Appropriations should be made for G.C. as well as syphilis.
      - f. More rigid enforcement of law for compulsory treatment.
      - g. More cooperation between states.
      - h. Investigate sources in neighboring states and cities.
      - i. Investigate reason for cases going to New York and Massachusetts for treatment with view to remedying situation.
      - j. Recognize role played by traveling salesmen, migrant tobacco workers, and conventions in spread of diseases in state.
  2. For private practitioner
    - a. Better cooperation between doctor and health department.
    - b. Physicians should report *all* cases — delinquents by name, as provided by law.
    - c. Physicians' fees should be lowered.
    - d. Physicians might do free Wassermanns on all volunteering in campaigns.
    - e. Physicians should adopt rule to get source of each case and should cooperate fully with health department in all epidemiological work on sources and contracts.
    - f. Physicians should not be lax in carrying out requirements of marriage law. Should not merely take blood for Wassermann but also look for clinical signs of disease.
  3. For health department
    - a. State should supply drugs gratis.
    - b. State should supply drugs for patients not able to pay regular fee.
    - c. State should pay practitioner for patients not able to pay for intensive course of treatment — compulsion to clinics makes patient secretive thus preventing early and complete treatment.
    - d. Work of venereal disease control should be distributed equally among physicians — problem of remuneration most important.
    - e. Free clinics should provide more intensive treatment.
    - f. Abuse of patient going to clinic is a matter for correction.
    - g. Some method of helping physician to contact delinquent patients should be provided.

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(Continued on Page 299)



# From the Secretary's Office

CREIGHTON BARKER, M.D.

258 Church Street

New Haven

The Council has approved the recommendation of the Society's Committee on Public Health to ask the various hospitals in the State to recommend to discharged obstetrical patients the services offered by public health nurses and well baby conferences, and to emphasize the desirability of post natal maternal and infant examinations.

The Council voted to take no action upon the endorsement of the film, "Birth of A Baby", for public showing.

## New Councilors

Dr. Charles H. Turkington, ex-President of the Society, has been elected councilor from Litchfield County to succeed Dr. Harry B. Hanchett.

Dr. Thomas P. Murdock, ex-President of the Society, has been elected councilor from New Haven County to succeed Dr. Henry L. Swain.

## New Members Elected Since The Annual Meeting, 1937

### NEW MEMBERS — 1937 - 1938

#### Fairfield County

Meyer Abrahams, New Canaan  
Allan Davis Ashcroft, Stratford  
John William Buckley, Bridgeport  
Gray Carter, Greenwich  
Robert D. M. Cunningham, Stamford  
Stanley Rochelle Dean, Newtown  
Lindo Peter DiFrancesco, Stamford  
Robinson Harry Dorion, Stamford  
J. Benton Egee, Sandy Hook  
Francis George Findorak, Stratford  
Francis Xavier Foley, Bridgeport  
Marjorie Fulstow, Fairfield  
Serafino Genovese, Ridgefield  
Louis Augustine Giuliano, South Norwalk  
Grace Viola Gorham, Norwalk  
A. Nathaniel Grant, Stamford  
Paul Harper, Bridgeport  
Francis Murphy Harrison, Stamford  
Julian Hawthorne, Greenwich  
Joseph Gerard Hennessey, Bridgeport  
Alfred F. Hewitt, Stamford  
Kirby Smith Howlett, Jr., Shelton  
Edna Hunkemier, South Norwalk  
Edward Glens Hurlburt, Bridgeport  
Edward Philip Kemp, Bridgeport

Robert C. Keys, Fairfield  
Albert Patrick Cassidy Kezel, Stamford  
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Thomas Smith McLean, Jr., Bridgeport  
Charles Anthony Murphy, Stamford  
James Joseph Murphy, Danbury  
Robert Wenzel Nespor, Westport  
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Francis Patrick O'Meara, Glenbrook  
Marcus Paris, South Norwalk  
Robert E. Perdue, Norwalk  
Joseph L. Piasecki, Norwalk  
Edward Cotton Rawls, Stamford  
Harold Ribner, Bridgeport  
Louis Rogol, Danbury  
Isidor Rosenthal, South Norwalk  
Raymond A. Sekerak, Bridgeport  
Richard J. Sekerak, Bridgeport  
Cornelius Joseph Shea, Bridgeport  
Eric Ernest Stetzel, South Norwalk  
Roger Couvelle terKuile, Bridgeport  
Sidney Attilio Thompson, Greenwich  
Albert J. Trimpert, Bethel  
Walter Van Tassel, Darien  
John William Vollmer, Norwalk  
Nathan Weinstein, Norwalk

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David Irving Bloom, Thompsonville  
Maudie Marie Burns, Hartford  
George M. Connor, Plantsville  
Bruce James Coyle, Windsor Locks  
John Anthony DePasquale, Hartford  
William Francis Donovan, Hartford  
Edward Patrick Dunne, Unionville  
Frederick Speirs Ellison, Hartford  
Franklin Manley Foote, West Hartford  
David Galinsky, Hartford  
Harry Joshua Gray, West Hartford  
William Frederick Green, Hartford  
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Dewey Katz, Hartford  
Abraham Ober Kleiman, Hartford  
Rutledge Starr Lampson, Hartford  
Henry Ryle Lewis, Hartford  
Angelo Arthur LoVetere, Kensington  
Harry Bernard Miller, Hartford  
William James Neidlinger, Hartford  
Martha Alice O'Malley, West Hartford  
Charles William O'Neill, Hartford  
Vincent Domenica Padula, Hartford  
Albert Upham Peacock, Hartford  
George Peter Perakos, New Britain

Thomas Eugene Shaffer, Farmington  
 George Irving Sneiderman, Hartford  
 Louis Spekter, Hartford  
 Ralph Merwin Stolzheise, Hartford  
 Alfred Bernhardt Sundquist, Manchester  
 Arthur Alfred Tait, West Hartford  
 Aresto Peter Tortolani, Plainville  
 Ralph Moore Tovell, Hartford  
 Paul Holmes Twaddle, Hartford  
 Loftus Linwood Walton, Hartford  
 Benjamin Bradford Whitcomb, Hartford

#### **Litchfield County**

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 Henry George Atha, Thomaston  
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 Richard Iddings Barstow, Norfolk  
 William C. Clarke, Cornwall Bridge  
 Stephen J. Ignace, New Milford  
 Joseph Henry Kott, Torrington  
 Howard G. Stevens, New Milford  
 Gustav Wilens, Torrington

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 William J. Bruckner, New Haven  
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 John J. Casagrande, Ansonia  
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 David Jerome Cohen, Meriden  
 William G. H. Dobbs, New Haven  
 William Finkelstein, Waterbury  
 Clements Collard Fry, New Haven  
 William John German, New Haven  
 Louis S. Goodman, New Haven  
 James Anthony Grillo, Hamden  
 Martin Irving Hall, Bristol  
 Jesse Samuel Harris, New Haven  
 John Seabury Hathaway, New Haven  
 Robert William Kaschub, Meriden  
 Margaret A. Kennard, New Haven  
 Samuel Daniel Kushlan, New Haven  
 Edward A. McCullough, Meriden  
 Leonard Parente, New Haven  
 Rocco Joseph Petrucelli, Meriden  
 Abraham D. Poverman, New Haven  
 Walter J. Reilly, Naugatuck  
 Edward B. Spier, New Haven  
 Kenneth W. Thompson, New Haven

#### **New London County**

Harvey B. Ansell, Jewett City  
 Roy Foster Cantrell, New London  
 Maurice Roberts Moore, Gales Ferry  
 Randolph Reynolds, Hadlyme  
 Seraphino Paul Tombari, Norwich

#### **Tolland County**

None

#### **Windham County**

Charles Neilson Denison, Killingly (Dayville)  
 George S. Lambert, Danielson

### **SEMI-ANNUAL REPORT OF COMMITTEE ON MEDICAL ECONOMICS OF FAIRFIELD COUNTY MEDICAL ASSOCIATION**

The report of the Committee on Medical Economics of the Fairfield County Medical Association submitted at the annual meeting in April should be of interest to all physicians in the state. The problem of patients seeking admission to ward services when they can afford private care was considered by this committee and the adoption of credit statements to be issued by the hospitals of the county and by the referring physicians was recommended. This recommendation was adopted by the Board of Trustees of the Association and copies of the credit statements sent to all the hospitals in the county.

Another problem considered was that of patients seeking admission to ward services who are members of Group Hospitalization Plans and who thus avoid the payment of physicians' fees. The State's Attorney rendered the opinion that a hospital superintendent would commit a breach of his trust if he admitted a person to a ward service who could afford to pay private rates. It was further determined by this Committee that patients who are members of Hospital Groups could not be admitted to the general ward for free medical care.

Complaints had been received from members of the County Association to the effect that abuses of Veterans' Administration privileges existed. This was investigated and it was ascertained that care of non-service disabilities is extended to Veterans only in the event that they are unable to defray the cost and after they have filled out a sworn statement to that effect. The committee investigated specific cases and found no abuses of Veterans' privileges.

In regard to the Principles and Proposals of the 430, the Committee found itself unwilling to endorse the same but expressed itself as opposed to a policy of doing nothing and further recommended a study of the problem under the subdivisions of medical education, care of the medical indigent, and medical practice.

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**Write Hynson, Westcott & Dunning**

**Their offer is on Page 13**



## SECTION OF Orthopedic Surgery

### Organization of Section

On March 23rd at Newington Home for Crippled Children, The Section of Orthopedic Surgery of the State Medical Society was organized. By-laws were established, M. K. Lindsay elected Chairman and J. L. Vickers, Secretary. A program was presented to the group, prepared by the staff at Newington Home. The Section will meet again during the State Society Session with a program to be presented by members at The Seaside Sanatorium, Waterford.

### British Surgeon Visits Connecticut

Mr. McMurray, F.R.C.S., of Liverpool, was the guest of honor at The American Orthopedic Association meeting in Atlantic City, May 3-5. It is expected that he will visit Newington Home for Crippled Children during his stay in the east, at which time the staff plans to present a short program for him. Mr. McMurray was the associate of Sir Robert Jones for a quarter of a century and ranks as probably the leader of British Orthopedics.

### Short Special Post-graduate Course in Germany

A short orthopedic course will be given in Koln, Germany, at the Orthopadische Universitäts-Klinik from the 27th of July to the 30th at a cost of 50 RM. The assembly of instructors appears imposing, including Professors Brandes, Hohman, Kleinschmidt and Roeren. This should prove an excellent review course for those wishing to spend a few days in professional work during a visit to Germany this summer. The meetings will be held in the beautiful city of Koln on the Rhine River in that part of Germany least disturbed by the National Socialistic upheavals in the medical profession.

### Die Behandlung der Epiphysenfrakturen durch Nagelung. E. Christidi. Zentralbl. für Chir. 65, 10, 5 Mar. 1938.

All epiphyses are replaced by manipulation and nailed with long slender stainless steel pins pounded in through the skin. Three or more are used and are withdrawn after a few weeks.

Most cases are put up in plaster for variable lengths of time. This is another reapplication of an old principle.

Rehabilitation of Persons Injured by Accident, a report, can be obtained on application from H. M. Stationery Office, London for four pence. This report contains much information concerning fracture management in fracture clinics and should be of considerable value to every hospital administrator and to most orthopedic surgeons.

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### CONNECTICUT FRACTURE COMMITTEE A.C.S.

On April 21 the Spring meeting of the Connecticut Fracture Committee was held at the Hunt Memorial, with an important business meeting from 10:00 to 12:00 A.M., presided over by the Chairman, Dr. Paul P. Swett. At the close of this meeting Dr. Charles L. Scudder of the National Fracture Committee was welcomed and gave an interesting address, in which, among other things, he said that the Connecticut Fracture Committee is doing pioneer work along certain lines, which work is stimulating to the sixty odd Fracture Committees throughout the country. Luncheon was served at the Hartford Club.

An interesting movie entitled, "Why Take a Chance?", was shown by the Motor Vehicle Department at the opening of the afternoon clinical session. This was followed by seven short papers, and at the end of the meeting at 4:15 P.M. the moving picture developed by the Connecticut Fracture Committee and sponsored by the Aetna Casualty & Surety Company, on "The Application of Emergency Splints," was shown. About fifty members and guests attended the meeting.

R. M. Yergason, M. D.  
Secretary

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### A QUESTION OF ETHICS

"It is the duty of the dispensary physician to protect the hospital against exploitation, and himself against unfair competition by himself, by deliberately referring the able-to-pay patient to the physician's office in order to collect a reasonable fee for treatment."

—F. A. Faught, M.D., *Penn. Med. Jour.*, April, 1938.

## SECTION OF Obstetrics - Gynecology

The Section of Obstetrics and Gynecology of the Connecticut State Medical Society is open for membership to anyone who is interested in these subjects. Anyone who is interested in this membership should write to Dr. E. W. Foster, 147 W. Main Street, Meriden, Connecticut, and enclose \$2.00, which are the yearly membership dues. These membership dues are used for one purpose only, that is to pay for the expenses of speakers for the meetings.

On June 1st, at the Section Meeting in conjunction with the State Medical Society, Dr. Roy W. Mohler, of Philadelphia, will talk on "Leukorrhea". This will include a discussion of gonorrhea in the female. During the Clinical Congress in September it is planned to have a distinguished visitor as guest speaker. To pay for these speakers membership fees are being initiated.

It is hoped that all those over the State who are interested will respond, and particularly general practitioners who do a fair amount of obstetrics are desired as members of the Section.

Edward W. Foster, M. D.  
*Secretary*



### DEPARTMENT OF PSYCHIATRY AND MENTAL HYGIENE and

### PSYCHIATRIC CLINIC, YALE UNIVERSITY, SCHOOL OF MEDICINE

A number of inquiries from physicians in Connecticut have been received concerning the psychiatric facilities at Yale. The School of Medicine and the staff of its Department of Psychiatry and Mental Hygiene appreciate the opportunity to give some information to the readers of this Journal.

Psychiatry had been represented at Yale for many years. The first steps in the direction of the organization of the present Department of Psychiatry and Mental Hygiene were taken in 1925. Then Mental Hygiene for the college students was the main objective; psychiatric lectures and clinics for the medical students and

dispensary were only slowly developed. When the plan for the Institute of Human Relations was considered, a place was found for the department in the scheme of the Institute, and space was provided for it in the Institute building.

The teaching responsibilities of the department in the School of Medicine increased and spread to other clinical departments. The department, furthermore, was enabled to undertake a few cooperative ventures with other departments (Psychology, Sociology, Anthropology) as represented in the Institute of Human Relations, and with other schools (Graduate, Law, Divinity).

The following is an outline of the organization of the Psychiatric Service as it has developed since 1931 when psychiatry began to be an integral clinical department of the New Haven Hospital. Its diagnostic, treatment, research, and teaching activities are closely coordinated with those of the Departments of Medicine, Surgery, Obstetrics and Gynecology, and Pediatrics. The Department of Psychiatry and Mental Hygiene maintains three inter-related clinical services in the hospital as well as the division of laboratory research, each of which is under the direct supervision of a senior physician. Some special liaison work is done with the Department of Pediatrics.

The in-patient service of the clinic is located in the building of the Institute of Human Relations. There are 50 beds. Complete facilities are available for the diagnosis and treatment of all types of psychiatric illnesses. The first floor is reserved for the care of patients with minor illnesses such as psychoneuroses and uncomplicated behavior problems; it is practically an open unit. The second floor affords facilities for the treatment of patients suffering from the more severe mental disturbances. The treatment of all patients is supervised by the psychiatrist-in-chief, assisted by a senior physician, five house officers, and a staff of graduate nurses. Emphasis is placed upon individual treatment by the physician. The accessory treatment resources of an occupational therapy shop, hydrotherapy and gymnasium, are available to all patients. The rooms are furnished attractively and comfortably. Porches and a terrace garden are readily accessible. The majority of the patients occupy single rooms. Four-bed units are also available. Private patients are accepted as well as those



who cannot afford to pay the entire cost of their treatment. The great majority of patients enter the Psychiatric Clinic voluntarily, although admission on legal commitment may be secured if necessary. Arrangements are made in advance of the patient's arrival in all but emergency cases because of the necessity of restricting admissions to those cases which may be expected to benefit from the type of care which the service has to offer. In general, patients are accepted for a minimum period of two weeks' study and treatment. Alcoholic cases are accepted for a minimum period of one month. A number of patients remain for prolonged treatment.

The out-patient service offers complete diagnostic and treatment facilities for patients who do not need hospital care. Patients are seen by individual appointment. Treatment of out-patients is supervised by the psychiatrist-in-chief, assisted by a senior physician and three house officers on full time out-patient duty, as well as by three physicians on part-time.

The consultation service is directed by a senior physician on full time, and provides psychiatric assistance for patients who are on the wards of the other clinical departments of the New Haven Hospital.

Emphasis is placed upon complete diagnostic study and thorough treatment. The consultation and treatment resources of all other medical services of the hospital are immediately available and are constantly utilized. A Division of Psychology is included in the Psychiatric Department. The resources of all laboratories of the New Haven Hospital and of the Radiology Department are likewise called upon whenever necessary. Because of this situation in which the psychiatric service is an integral part of a general hospital, favorable opportunities exist for the study and treatment of those illnesses which fall in the borderline between internal medicine and psychiatry. The interest of the Department of Psychiatry and Mental Hygiene is, however, not restricted to the milder nervous and mental illnesses. All types of cases are accepted for diagnosis and treatment.

In addition to the hospital services just described, the Department of Psychiatry and Mental Hygiene collaborates with the New Haven Branch, Connecticut Society for Mental Hygiene in maintaining the Psychiatric Service in the

Community which provides psychiatric assistance for the community agencies of the New Haven Community Chest area.

Inquiries should be directed to Dr. Eugen Kahn, psychiatrist-in-chief, 333 Cedar St., New Haven, Connecticut.



## COMMENTS ON CORONARY ARTERY DISEASE

(Continued from Page 263)

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Sanatoria List  
before making a decision  
Pages 14-15**

## REPORT OF THE MANAGERS OF THE NEURO-PSYCHIATRIC INSTITUTE OF THE HARTFORD RETREAT TO THE DIRECTORS

During the year recently closed, the general program of the Institute has been to continue to seek leadership in the field of psychiatry and avoid the danger of lapsing into a mediocre institution suitable for custodial care. This program has required the establishment of high standards and the continuous effort of rigidly maintaining these standards. Over a period of years it necessarily means that we cannot be satisfied with mere maintenance but must, whenever the means are available, make additions and improvements. While the Institution has a background of one hundred and sixteen years of service and a just pride may be taken in this background, nevertheless from the standpoint of physical plant, the very age of the Institution confronts us with maintenance problems which would not be met in a new establishment. In recent years we have been forced to practically rebuild parts of the Institute which are from seventy-five to a hundred years old and which were in some instances seriously dilapidated structurally, and we have also been forced to add each year new equipment, new facilities and even new buildings.

Generally speaking, nothing can long remain stationary, whether it be the individual or the institution. If progress is not made, recession will ensue. An institution which does not go ahead will soon be in danger of becoming dormant or moribund. To avoid this danger and to be abreast of the times, the Institute has endeavored to provide itself not only with modern equipment and up to date facilities, but also to engage as far as its resources permit in research and educational undertakings.

With unlimited funds the program which has been sketched out would be comparatively easy of fulfillment but voluntary philanthropic or public contributions are not readily available for a hospital for mental and nervous diseases. When the institution was founded, it received donations from the public and a grant from the State and at the present time it is possessed of a modest endowment. In the main, however, the Institute has been compelled to do for itself what was possible from year to year with its own re-

sources, keeping its expenditures almost within the limits of its operating income and thus avoiding the incurrence of debt.

The general objectives could perhaps be more quickly attained with a greater limitation on the dispensation of charity during the years required for reconstruction and improvement. But the elimination of charity has not been the policy of the Institute at any time. The problem has been to dispense charity to the utmost of the resources available while concurrently taking such steps as were reasonably necessary to rehabilitate the physical plant and equipment and keep in the forefront of psychiatric institutions.

In connection with charity work, the policy of the founders of the Institute was to extend charity to those cases of psychiatric disorder which showed a favorable prognosis rather than to give this type of aid to chronic or incurable cases or those where the prognosis was doubtful. The founders also provided that no one would be received wholly or in part on charity funds if he was able to finance his own care. This policy still governs the administration of our affairs. By restricting assistance to cases where the prognosis is encouraging, the Institute is enabled to do the most good to the greatest number.

The Institution was founded through the philanthropy of the Connecticut State Medical Society and it receives patients exclusively on the recommendation of medical men. Its limited facilities and financial resources do not make it possible to receive on charity funds patients referred from social agencies because they with their organized charitable work would tend to overwhelm our accommodations.

During the course of the year, figures were submitted to your Board indicating that in the calendar year 1937, 7.9% of all the admissions paid nothing to the Institute for board and room, not even the general hospital charity ward rate. Less than the general hospital charges for a patient in its charity ward was paid by 12.74% of our admissions and less than it costs a general hospital to care for patients in charity wards was paid by 25.37% of our admissions. This we have been able to do notwithstanding the fact that our costs include those not common to general hospital care, including our staff of more than fifty instructors, physiotherapists, entertainers and salaried specialists, with all of our nursing done by graduate salaried personnel.



With the difficult problems with which the Institute has been confronted, what has been accomplished has resulted from management. Continual effort has been made to eliminate waste and to install the best possible system of management in order to be able to keep abreast of the times in scientific development and increase the amount which could be offered for charity.

Some of the detailed progress which has been made during the year includes the heavy outlays incurred for the removal of fire hazards, the installation of fire-proofing, the rebuilding and remodelling of North Hall which is now being thoroughly modernized, the repair of roads and walks, the installation of further hydro-therapeutic facilities for the North Service, and the completion of the boiler house addition and equipment and of the West Wing of the Graduate Club. Much remains to be done along this general line but of necessity it must await available funds. What the Institute has set out to do it hopes ultimately to accomplish through the practice of maximum economy and the conservation of resources. As in years past, it is our hope that a better understanding of the Institute, its charitable, research and educational purposes and its accomplishments will attract more donations from the public.

As a whole, the Institution has been making real progress, and is in better shape as each year comes to an end and better equipped to serve and care for its patients and to contribute assistance in the development of psychiatry. For the work which has been done during the past year great credit is due to the Psychiatrist-in-Chief, Dr. C. Charles Burlingame.

Francis W. Cole,  
*Chairman*

Hartford, Connecticut  
April 21, 1938

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## THE TREATMENT OF NEUROSYPHILIS

(Continued from Page 271)

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12. Hinsie, L. E., and Blalock, J. R.: *Proc. First Internat. Conf. Fever Therapy*, New York, March, 1937.

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## WHAT OUR DOCTORS HAVE TO SAY

(Continued from Page 292)

- h. Fever therapy might be provided in state hospitals.
- i. Pamphlets might be provided to physicians at physician's expense to be distributed to each patient explaining the advantages of blood test.
- j. Classroom examinations should follow reporting of G.C. case in which *school* contact is suspected.

### B. Comments

- 1. Pre-marital law fine step, effective in getting new cases.
- 2. Sulfanilamide shortens course of G.C. treatment.
- 3. State Laboratory's economy program responsible for cutting down on routine Wassermanns by some physicians.
- 4. System of health department inadequate — many reports, meager results.
- 5. Questionnaire approved as good method to determine need before attempting for which demand not proved.
- 6. Marked cessation in cases noted in past eight years.
- 7. Incidence believed to be less than currently publicized.
- 8. Incidence believed to be great.
- 9. Believe program necessary — control possible.
- 10. Control too good according to one physician.

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## Our Neighbors

### MAINE

The Maine Medical Association holds its 86th Annual Meeting at Bar Harbor, June 26-28. The program includes a Cancer Symposium on the evening of the second day with such speakers as Dr. Frank E. Adair of Memorial Hospital, New York City, and Dr. C. C. Little, Director of the Jackson Memorial Laboratory, Bar Harbor, in addition to three research associates at the same institution. Governor Barrows, Dr. Allan Craig, now superintendent of the Eastern Maine General Hospital at Bangor, and Dr. Frank Lahey are the scheduled speakers for the banquet the last evening. Those of us who have attended any of the Maine Medical Association's annual affairs know what a good time these neighbors can plan and carry out.

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### RHODE ISLAND

The maternal death rate for Woonsocket, R. I., after showing a steady decline for six years jumped to 8.5 for 1936. During that year 42.3% were delivered in local or near-by hospitals. One case of acute cardiac failure, three deaths from hemorrhage and two from puerperal sepsis are noted. There is need of health education in Woonsocket and of better instructions to Woonsocket mothers as to good obstetrics. Adequate prenatal care is still to be desired. The records show no Wasserman reactions reported. The Woonsocket Medical Society should be encouraged to conduct a definite educational program for young mothers.—*R. I. Med. Jour.*, Mar. 1938.

## - NEWS -

### *from County Associations*

#### Litchfield

About forty-five members and guests were present at the annual meeting held in Torrington on April 26. The President's Address was delivered by Dr. Howard S. Allen of Woodbury.

The following papers were presented: Lymphocytic Chorio-Meningitis by Dr. Arthur H. Jackson, Washington; Autonomic Nervous System by Dr. Abraham Myerson, Boston, Mass.; Figures by Dr. Speight, Past President of Middlesex County Medical Association.

#### Hartford

Dr. D. C. Y. Moore, chairman of the Board of Health and town health officer of Manchester for nearly 25 years, has been appointed medical examiner to succeed the late Dr. Holmes. Dr. Moore is at present police surgeon and president of the Manchester Chamber of Commerce.

In the 9th Annual City Health Conservation Contest held by the United States Chamber of Commerce Hartford won first award in Group III, cities of 100,000 to 250,000 population. Awards of merit also went to Hartford in Tuberculosis Control and in Syphilis Control.

#### New Haven

The first regular meeting of the New Haven Medical Association in May, was held on May 4th at 8:45 o'clock. Two interesting cases of pancreatic disease were presented by Dr. Wilder Tileston. The paper of the evening was read by Dr. M. Myerson of New York City, on the subject of "Petrositis."

The second May meeting held on the evening of May 18th was addressed by Dr. Joseph Epstein, attending neurologist at the Neurological Institute of New York, on "The Use of Insulin Shock and Metrazol in Psychoses illustrated by Motion Pictures."

The Yale Medical Society held its regular monthly meeting on May 11th at 8:30 P.M., in the Sterling Hall of Medicine. The following program was presented:

1. Studies on the Hydrogen Ion Concentration of Circulating Blood.  
L. F. Nims - C. S. Marshall
2. Catalepsy produced by the cortical application of deuterium oxide.  
J. B. Herrmann - H. G. Barbour
3. Chemical Studies of Anterior Pituitary Hormones.  
A. White.
4. Cortical Control of Cardio-vascular Reflexes.  
(With demonstration).  
H. E. Hoff - R. Horton

The Yale University School of Medicine announces the following faculty changes effective July 1, 1938:



## Retirement

Arthur N. Alling, '86, Clinical Professor of Ophthalmology, Emeritus. Dr. Alling has been connected with the Yale School of Medicine since 1893. He will now be a Consultant on the staff of the New Haven Hospital after serving as an Attending Surgeon and Ophthalmologist-in-chief since 1914.

## Promotions

Norton Canfield, Associate Professor of Otolaryngology  
William J. German, Associate Professor of Surgery  
Lewis C. Foster, Associate Clinical Professor of Surgery  
Simon B. Kleiner, Associate Clinical Professor of Surgery (Proctology)

Denis S. O'Connor, Associate Clinical Professor of Orthopedic Surgery

William U. Gardner, Research Associate in Anatomy

Leonell C. Strong, Research Associate in Anatomy

Gertrude van Wagenen, Research Associate in Obstetrics and Gynecology

Alexander L. Bassin, Assistant Professor of Orthopedic Surgery

Arthur J. Geiger, Assistant Professor of Medicine

Robert M. Thomas, Assistant Professor of Pathology

Leslie F. Nims, Assistant Professor of Physiology

Theodore C. Ruch, Assistant Professor of Physiology

Bernard S. Brody, Assistant Clinical Professor of Surgery (Neurology)

Louis N. Claiborn, Assistant Clinical Professor of Surgery

Michael D'Amico, Assistant Clinical Professor of Radiology

Theodore S. Evans, Assistant Clinical Professor of Medicine

Albert J. Howard, Lecturer in Anatomy (Asst. Prof. rank)

Samuel J. Silverberg, Assistant Clinical Professor of Otolaryngology

Paul W. Vestal, Assistant Clinical Professor of Surgery

Erik Homburger, Research Assistant in Psychiatry and Mental Hygiene (Psychoanalysis) with rank of Assistant Professor

## New Appointments

Harlan B. Perrins, Associate Clinical Professor of Obstetrics and Gynecology

Ernest Caulfield, Lecturer in Clinical Pediatrics, with rank of Assistant Clinical Professor

James A. Hamilton, M.C.S., Lecturer in Hospital Administration, with rank of Associate Professor. Mr. Hamilton is Superintendent-elect of the New Haven Hospital.

Kurt G. Stern, Research Assistant in Physiological Chemistry, with rank of Assistant Professor. Dr. Stern has held an Alexander Brown Coxé Fellowship at Yale during the current year and for two years previous was a Lecturer in the School of Medicine.

## Leave of Absence

Ralph G. Meader, Assistant Professor of Anatomy, has been granted a leave of absence in 1938-39. He will study abroad on a Rockefeller Fellowship.

## Resignation

Caspar G. Burn, Assistant Professor of Pathology

## Promotions and new appointments

### Instructors, 1938-39

Paul L. Boisvert, Pediatrics

Willard E. Buckley, Radiology

Clarence H. Cole, Surgery

Orrin F. Crankshaw, Medicine

Muriel Case Downer, Physical Therapy

Gwilym A. Edwards, Otolaryngology

Reginald C. Farrow, Orthopedic Surgery

Irving Friedman, Obstetrics and Gynecology

Arthur Kirschbaum, Anatomy

Kalmen A. Klinghoffer, Medicine

Philip M. LeCompte, Pathology

Helen G. Richter, Psychiatry and Mental Hygiene

Edward Speir, Surgery

Samuel R. Warson, Psychiatry and Mental Hygiene

Dwight E. Wilson, Urology

### Instructor's rank

Walter F. Grether, Research Assistant in Primate Biology (Psychobiology)

G. Hamilton Crook, Research Assistant in Primate Biology (Psychobiology)

### Clinical Instructors

Courtney C. Bishop, Surgery (new)

Marcus Backer, Medicine (these are all promotions)

Ernest F. Gordon, Pediatrics

Morris Y. Krosnick, Pediatrics

David N. Shulman, Medicine

Joseph F. Watts, Ophthalmology

Carl H. Wies, Medicine

At a special meeting of the Yale Medical Society held at 4 P.M., on May 18, Dr. Herbert Windsor Wade, Medical Director, Leonard Wood Memorial, Culton, Phillipine Islands, addressed the members on "Leprosy as a World Problem".

## Middlesex

The annual meeting of the Middlesex County Medical Association was held at the Edgewood County Club in Cromwell, on April 14, 1938. The Society was addressed briefly by Dr. Creighton Barker, the Secretary of the State Medical Society, and also Dr. Talbot of the State Department of Health, who spoke on venereal work. Dr. Orpheus Bizzozero also read a very delightful and interesting paper on the "Practical Aspects of Modern Endocrinology."

The following new officers were elected: Dr. Ella A. Wilder, President; Dr. George M. Craig, Vice-President; Dr. Charles Russman, Clerk; Dr. Roy L. Leak, State Councillor; and Drs. Harry Frank and William Joyce, State Delegates.

## • OBITUARIES •

### EDMUND PEASLEE DOUGLASS, M.D.

1865 - 1937

Edmund Peaslee Douglass was born on October 20, 1865 in the town of Thetford, Vermont, son of Samuel M. and Martha Shepard Douglass. He attended grade schools in the village of Post Mills and was graduated from Thetford Academy. He received his M.D. degree from the University of the City of New York in 1889.

Shortly after graduation he came to Groton where he practiced for 45 years, first in his home on Thames Street, Groton, and later for a few years in the Dewart Building, State Street, New London.

Dr. Douglass was a charter member of the New London Medical Society, member of New London County Association, the Connecticut State Medical Society of which he was Vice President in 1910, the American Medical Association, the New York Physical Therapy Society and the New England Physical Therapy Society.

Dr. Douglass was a member of the original staff of the old Memorial Hospital on Garfield Avenue, New London, and served in that capacity until the hospital was closed in 1918 and amalgamated with the Joseph Lawrence Free Public Hospital. He was one of the founders of the Home Memorial Hospital which opened in 1920 and served as President of staff there for several years. He was a member of Fairview Lodge, No. 101, I. O. O. F., and an honorary member of the Groton Mystic Lions Club.

The doctor is survived by his wife, Mrs. Martha Douglass and two sons, Melvin L. Douglass and Dr. Edmund L. Douglass and two grandchildren, Edmund John Douglass and Robert Jolley Douglass, sons of Dr. Edmund L. Douglass.

Dr. Douglass had been in ill health for about eight years and confined to his bed for the past three years and entered into rest April 9, 1937. His passing occasioned sincere mourning. He was a gentle and patient man and his integrity was known to all.

James L. Harrington, M.D.

### WILLIAM J. HOGAN, M.D.

1875 - 1937

Physicians as a class see a great deal of death but they think very little of it, and it is only when the Great Reaper visits some dear friend or close associate that we give even a thought to the world beyond the grave. This thought is forced upon us with telling effect when the object of death's visitation is one who is far from having reached the proverbial three score years and ten of the Psalmist, but one who in the ordinary course of events should have ahead of him several years of usefulness.

All the physicians in Torrington and a great many of the citizens were shocked beyond measure when the sad news of Dr. Hogan's death reached the city on May 22nd, of this year, for on that date the doctor passed to his reward at the New Haven Hospital where he had been taken ten days previously. He died of a coronary occlusion from which he had been suffering for about a week before admission to the hospital, having had a cardio-vascular defect for several years.

Dr. William J. Hogan was born in the City of Torrington on June 22nd, 1875. He was the youngest child of John and Catherine Carrol Hogan who were married in Torrington in 1869. He passed through the public schools of his native town and was graduated from the Torrington High School in 1894 at a very early age. In the fall of that same year he entered the Yale School of Medicine and after a stay of four years (1898) was graduated with the degree of M.D. Following his graduation Dr. Hogan did a large amount of hospital work having interned at the Hudson Street, Fordham and Riverside Hospitals of New York City, and in the fall of 1902, four years after his graduation from Yale, he returned to his native city well equipped for the practice of his profession. For many years he carried on a large practice in general medicine and obstetrics. There may or there may not be a modicum of truth in the old adage that "physicians never get bread until they have no teeth to eat it." This was by no means true in the case of Dr. Hogan who because of his own native ability and the prominence of his family in the community almost from the start acquired a large following.

On June 15, 1918, Dr. Hogan was married at St. Francis Church to Miss Katherine Dunn.



She also was a native and life long resident of Torrington and a graduate of the High School. From this union there was born one child, Betty, who soon became the very apple of her father's eye. It is now almost pathetic when he is gone to think over some of our conversations. How often he told of his one great desire in life, to live long enough to see her grown up and settled in life. Alas, such was not to be, the youngster having but reached the last grade in the Grammar School when her father passed on. Apart from attachment to his wife and little girl and his love of his sisters, only one of whom is now living, he had another beautiful attachment. I think if there was any trait in his character more marked than another, it was his extreme devotion to his only brother, John. In times of relaxation, wherever one was, there also was the other.

Early in 1914, when it became known that the city was about to have a hospital, Dr. Hogan left his general practice in Torrington and entered the New York Polyclinic Hospital for the study of surgery. At that institution he studied general surgery under Dr. Bodoian and gynecology under Dr. Taylor, both of whom are now dead, but at that time they occupied large places in the surgery of New York City. Dr. Hogan again returned to Torrington in the fall of 1916 to take his place as one of the surgical staff of the Charlotte Hungerford Hospital which had just been completed, and within a few years when the hospital was given full standing by the American College of Surgeons, Dr. Hogan was chosen Chief of the Surgical Division and for the next twenty years he gave the best that was in him to ward and private patients alike. In fact, most of us feel that it was his extreme devotion to duty that eventually undermined his once magnificent constitution. This was particularly true in the early twenties when Dr. Hogan did a very large amount of major surgery.

For some months previous to his death, his friends had noticed that he was not quite himself — the healthy glow that once illumined his face had been supplanted by a pallor that boded no good, but loving his work as he did with all his golden heart, he bravely kept at it until he was removed to the hospital less than two weeks before his death. When he laid down life's burden in May, of this year, Torrington lost a good citizen, his patients a good and con-

scientious physician and surgeon, his family with whom we all sympathize, a loving husband and fond father and affectionate brother, all of whom hope and pray that

"After life's fitful fever,  
He may rest well".

Timothy M. Ryan, M.D.

—☆☆—

**HUBERT F. KEATING, M.D.**

1878 - 1937



Dr. Hubert F. Keating first saw the light of day at Wallingford, Connecticut, on September 3, 1878. This event, history records, was a day or two after the great hurricane struck that town and demolished many homes, including that of the parents of Dr. Keating, almost resulting in the death of his mother who was rescued from beneath the debris of her demolished home by heroic efforts of the neighbors.

Dr. Keating attended the local schools of his town and earned by his own labor the means whereby he secured a medical education without the expense thereof being borne by his people. He completed a full course at the Medical School of Yale University, and graduated therefrom with the Class of 1908. Thereafter he served his internship at the New Haven Hospital, and the Lincoln Hospital, New York City, and later began the practice of medicine, opening his offices on Howard Avenue, in the Hill Section of New Haven, as it is so well known, in which section he continued until the day of his death. From the very day he opened office he succeeded in winning a place in the hearts of those who came in

contact with him, and it was evident to all that he was endowed and fitted for the practice of medicine. It was said of him that he brought to the home and to those he administered unto, a confidence and a faith that seemed to inspire the ones in pain, suffering and ill health with a hope that life, after all, was worth living. Dr. Keating was the personification of industry. In fact, so much so that he found little time for other callings, although he did render valuable services to the City of New Haven as a member of the Board of Education, to which he was appointed on August 31, 1918, and reappointed by and served eight years under Mayor David E. FitzGerald's administration of City affairs. He served as President of this great body, and generously gave of his time and ability for the welfare of the school system of New Haven.

During the draft days, so-called, of the World War, he was in charge of Medical Examinations in the Fourth Draft District, which included the so-called Hill Section. Here he displayed the same devotion and industry that ever characterized his outstanding manifestations of service and the performance of duty. The Government's call for medical men to enter the service was answered by Dr. Keating, and he became a commissioned officer.

He was ever interested in the progressive advancement of medicine, and always ready and willing to do his part to alleviate suffering humanity. Dr. Keating characterized more than words can describe the exalted place that the physician holds in the hearts of those he is called to administer unto. The hope of pecuniary reward never deterred him in the giving of his time and service to those in need, and today in New Haven there are hundreds of poor people who had occasion to call on Dr. Keating, and did so, whether or not they had the means to compensate him for his services,— and they speak with love and affection of him and of what he did for them. These folks — lovable, loyal, sentimental to the highest degree, full of affection and appreciation for what he did for them — will long remember his every-ready spirit and attitude to help. Sorrow, affliction and illness seemed to pass when he appeared, and "it surely will be recorded in the Good Book that the tears of happiness were oft times shed upon his passing o'er the threshold of the home of sickness."

He lived and served the people, and his devo-

tion to duty was a benediction to all who knew him or had occasion to call on him for assistance.

The world is sadder, the loved ones sorely stricken, the friends anguished, because of his passing. He received the summons which no mortal can refuse. He answered and then passed to "those shores" where we are taught that some day the loved ones and friends will greet him.

He knew from the beginning of his career that labor was the only talisman of success. He ate no idle bread, he flung away no priceless moments. In his youth, as in matured age, he was an example of intellectual activity, a monarch of mental energy. He possessed an unsatiated thirst for the knowledge of medicine. His purpose was to become as near perfect as possible in his profession, and to that end his indomitable energy and untiring industry, his inflexible fidelity to duty, his devotion to the cause of humanity, his incorruptible sense of justice, his purity of conduct, his buoyancy of disposition and his fearless self-reliance characterized him and led him forward in the successful walks of life. The very fiber and tissue of his soul were inspired by the golden truth that, in that which faith reserves for mankind, there is no such word as fail. He was honorable, faithful and true in public and private life. We who remain may look well to his past as the hope of his future, as we pay a tribute to the memory of Dr. Keating, for he was a man of cheerful yesterdays and confident tomorrows.

Dr. Keating, although not confined, had been ailing, and died suddenly on the 6th day of August, 1937, leaving surviving him his wife, Julia Moore Keating, and a son, Hubert M. Keating, aged fifteen years. He was laid to rest on the 10th day of August, 1937, mourned by those who dropped a tear in silence at his passing. He was a good husband and father, a good friend — more, he was a good man, in all that the term means. Dr. Keating loved his God and his Country. He was true to the ideals of home and family. He was loyal to friends. He was generous, even to those he owed no favor.

"He will see no more the things he saw on earth:— sorrow, sickness, affliction and death — for these things are passed away, but in the Holy Place he will see the comforts of his toil and have joy for all his sorrows. He will reap what he has sown, the fruits of deserving prayers and tears. There he will enjoy again his friends gone thither



before him and those that follow, and all will be clothed with glory and majesty."

In the passing of Dr. Hubert F. Keating, while the sorrow of his wife and son left to mourn is immeasurable, and the loss to the medical profession, the City and the people he loved and served cannot adequately be portrayed in words — yet we who remain, knowing that he kept the faith, are assured that he will receive the reward to which he is entitled, and will abide in the mansion prepared by Him for those who were faithful to Him on earth.

David E. FitzGerald

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#### WASHINGTON STATE MEDICAL ASSOCIATION TO APPOINT FULL-TIME SECRETARY

On the Pacific Coast the State of Washington has followed the examples of California and Oregon in deciding to employ a full-time secretary in the medical association. How well the following quoted from an editorial in Northwest Medicine for April, 1938, applies to our own State Society! "Limping along under the traditional hit and miss system of boards and committees carrying on their separate work, loosely coordinated under the direction of the president and the secretary. The need of a permanent executive who can develop and unite all the interests of the organization has been recognized during recent years. Several presidents have emphasized the necessity of an executive secretary and have urged the adoption of this plan of organization."

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#### TUBERCULOSIS AMONG TEACHERS IN KENTUCKY

23.5% of 3,990 students, averaging 24 years of age, tuberculin tested in the State Teachers Colleges of Kentucky were found to be reactors. 37 of these were found to have active tuberculosis as shown by X-ray. The findings of this survey amply warrant the conclusion that the results of periodically tuberculin testing and X-raying reactors, not only in the State Teachers Colleges, but in other higher institutions of learning as well, would richly compensate for the expenditure of time and money entailed. A uniform program of this character in schools throughout the State would be of tremendous educational and other value.

—Ky. Bull. Dept. of Health, April, 1936

## • Quarto Notes •

### OPERATIVE GYNECOLOGY

by Harry Sturgeon Crosser, M.D.

Professor Emeritus of Clinical Gynecology  
Washington University School of Medicine  
and

Robert James Crossen, M.D.

Assistant Professor of Clinical Gynecology  
and Obstetrics

Washington University School of Medicine

Fifth Edition \$12.00

1264 Illustrations 1076 pages

St. Louis C. V. Mosby Co. 1938

In this fifth edition of a well known text book, extensively rearranged and largely rewritten because of new knowledge, the authors repeat their former appeal for selective operative treatment for each individual problem. The book is thorough. It includes a chapter on the Intestinal Tract in Relation to Gynecologic Surgery and another on Anesthesia in Gynecologic Surgery, both written by collaborators, authorities in their respective fields. The material offered is up to date. Irradiation therapy, including post-operative deep X-ray in malignant disease of the ovary, both deep X-ray and radium in carcinoma of the cervix and radium and deep X-ray in myoma and adenomyoma of the uterus, is well presented. The closing chapter on Medicolegal Points emphasize many commonplaces often overlooked.

To assume anything of a critical attitude toward such a complete resume would seem a bit preposterous, however, we strongly question the advisability of recommending the transplantation of ovarian tissue and of advocating the use of the stem pessary in spite of its known hazards. We might take issue with the authors' idiosyncrasies in the field of operating room equipment, preparation of patients and instruments, and apparatus for unusual and special post-operative conditions.

The arrangement of this work and the addition of methods found to be of inestimable value in this field of surgery make it valuable as a reference for the gynecologist. One need not agree in detail with all the procedures offered, in fact, we are certain it is the authors' aim to present the entire field for individual selection and adaptation. The reader gains the impression that in operating today the risk must be justified and the patient properly prepared and effectually cared for afterward.

—☆☆—

### ARTIFICIAL FEVER PRODUCED BY PHYSICAL MEANS, ITS DEVELOPMENT AND APPLICATION

by Clarence A. Neymann, A.B., M.D., F.R.S.M.

Associate Professor of Psychiatry

Northwestern University Medical School

285 Pages \$6.00

Springfield, Illinois Charles C. Thomas 1937

Such is the need for accurate knowledge, that the author has justification for his indignation concerning the misinformation and conjecture which has arisen in regard to the discovery, development and uses of Artificial Fever Therapy. As one of the pioneers in this field, Neymann has very ably appraised and condensed with very good style the comprehensive literature on Fever Therapy into a text of great value. The book is arranged in clearly defined chapters which will be valuable for rapid reference. The material is well organized and succinctly expressed.

Every effective therapeutic modality should be based upon sound principles, and the author provides, therefore, an appropriate introduction to this subject in a discussion of the theories and principles of Artificial Fever Therapy. The reader is inclined to accept the assertion that the development of this therapeutic agent is based on a previously conceived plan developed upon three basic principles: the introduction of heat to the body, its retention, and its general diffusion. The brief, but scholarly, historical background provides a stimulating preparation for the succeeding discourse, which is the physiology of hyperpyrexia, and is discussed with clarity and proper emphasis. An important chapter on technique used in the application of electropyrrexia follows. This chapter is replete with essential details and emphatic contradictions and precautions in the use of this modality which is not entirely free of peril. The author's extensive experience finds expression in this, perhaps the most important, chapter of the book. The summary which is appended to this, as to other chapters, is a valuable adjunct to the text. The succeeding chapters of this monograph are devoted to the treatment of two large disease groups; and various organic diseases of the central nervous system, such as dementia paralytica, syphilis of the central nervous system, multiple sclerosis and chorea; the following chapters deal with certain of the chronic systemic disorders, such as arthritis, gonorrhea, and asthma, and yet the author indicates the ever-widening scope of electropyrrexia by discussing some of the treatments of the more acute maladies. The whole text is generously illustrated with clear and instructive photographs, diagrams and charts. Another noteworthy feature is the appended bibliography of some 550 carefully selected references to the literature. Taken as a whole, the reader will be impressed with the scholarly and masterful preparation of this noteworthy achievement.

Alexander L. Bassin, M.D.

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### NEW ORDER RELATIVE TO HERNIA

An order to the effect that no treatment of hernia by the injection method is authorized and that such treatment will not be paid for was recently issued by the United States Employees' Compensation Commission. This Commission is in charge of compensation and payment for medical services rendered to injured W.P.A. workmen. —*O. St. Med. Jour.*, May, 1938.

## Correspondence

State of Connecticut  
Executive Chambers  
Hartford

April 19, 1938

Dear Dr. Weld:

You and the members of the staff of the Connecticut State Medical Journal have my most sincere thanks for your congratulations on my arriving at the age of seventy-six.

Believe me

Most sincerely yours,

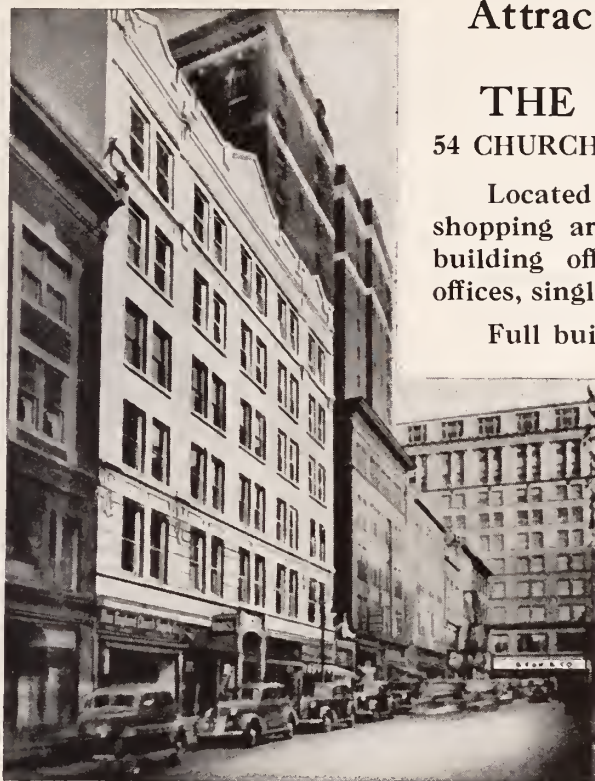
W. L. Cross

—☆☆—

### CHILDBIRTH IN THE UNITED STATES

The maternal mortality rate for eclampsia in this country has dropped 36 per cent in a period of six years. The Maternity Center Association of New York in a recent report showed that the maternal mortality in a group of approximately 5,000 patients who had been under supervision during the prenatal period was only 24 per 10,000 live births, compared with 62 per 10,000 live births for patients living in the same area but not receiving prenatal supervision. The Charlotte (N. C.) Maternity Clinic has reduced the percentage of deliveries by midwives from 20 to 6.6 in four years' time and has lowered the maternal mortality from one of the highest to one of the lowest in the State. Among the 2,595 women delivered in 1936 who attended the prenatal group-instruction classes of the Cleveland Child Health Association there were only 2 deaths — a maternal mortality rate of 7.7 per 10,000 live births compared with 38 per 10,000 live births for the city as a whole. At the Chicago Maternity Center, where between 2,000 and 3,000 cases are cared for each year, over a period of 4 years the maternal death rate was only 14.2 per 10,000 live births, including deaths of patients who were transferred to a hospital for delivery.—*The Child*, Feb., 1938.





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## • Abstract •

### THE PROBLEM OF LEFT-HANDEDNESS IN CONNECTION WITH THE QUESTION OF STUTTERING

By Dr. Alice Friedmann, of Vienna

(In Monatsschrift fuer Psychiatrie und Neurologie.

December, 1937. Pp. 257-279

The material used to study the incidence of the tendency to left-handedness comprised 240 subjects in 3 different groups. The first group, made up of 100 normal school children, included 16% manifest left-handed individuals, 34% latent left-handed, and 50% right-handed. The second group included 70 students at a private school specializing in the education of difficult children. The percentage of manifest and latent left-handedness among these was 24.3% and 35.7% respectively, while the right-handed proportion was 40%. 70 stutterers (59 children, 11 adults) formed the third group in which manifest left-handedness was present in 24.3%, latent left-handedness in 35.7% and right-handedness in 42.8%. This comparison would indicate that the left-handed tendency is not much less frequent in the normal than in the other two groups. Strong doubt must, therefore, be entertained of a direct connection between left-handedness and special

faults of development, and of left-handedness being a trait which is peculiar to the abnormal.

The assumption of a direct relation between left-handedness and stuttering (as if it were a question of interference in word formation occurring in the cerebral hemispheres) seems to have little probability. According to the results of this research, 42.8% of the stutterers were right-handed. It is to be suspected, however, that the latently left-handed individuals represent a mixed group, many of whom might be shifted to the right-handed classification, giving the latter a not improbable ratio of 50%. It would be more logical to seek the etiology of stuttering in the pedagogical-psychological field. It is acknowledged that the child presenting educational difficulties and left-handedness is less susceptible to successful training in overcoming the problems inherent in the left-handed anlage. Such a child is in opposition with his environment — left-handedness is only a part of this opposition. In many cases, the origin of the educational difficulties and of stuttering is promoted by the feeling of inferiority in the left-handed child. It must be remembered that all critical investigators have found left-handedness very extensive — latent cases of it are innumerable. The percentage of left-handed individuals who have been trained to the use of the right hand is far greater than the percentage of stutterers among men. Left-handedness, therefore, cannot be the only cause of the defect.

The extraordinary liability of the left hand, evidenced continually by left-handed individuals, as well as the relative facility with which a normal right-handed person may be trained to the left hand, indicate that the left-handed

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differentiation brings with it no insoluble problem for the normal person. In view of the recognized prevalence of manifest and latent left-handedness, it is obvious that any group brought together under any particular caption must contain a large number of left-handed members. If the percentage is unusually high, one may reasonably assume a connection between them; but the connection cannot be clarified from a purely mechanistic point of view.

F. K., M. K. B.—N. P. Inst. of Hart. Retreat

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### DEVELOPMENTS IN THE NEW YORK WORLD'S FAIR HEALTH EXHIBIT

In the Hall of Man located in the Medicine and Public Health Building at the Fair will be found an audible heart. By this apparatus the heart beats of an eighteen-foot, transparent man will be recorded. Other exhibits will include a vitameter registering vital statistics for the entire country, a huge mouth into which visitors may walk to inspect enormous reproductions of their teeth, and a small model of a baby's mouth equipped with a lever so that spectators can make the teeth grow.

The New York City Cancer Committee of the American Society for the Control of Cancer has signed a contract for 500 square feet of display space. The exhibit of this Committee will in-

clude an exact reproduction in miniature of the Paris laboratory of Marie and Pierre Curie, a similar reproduction of the laboratory of Wilhelm Konrad Roentgen in Bavaria with a full-size reproduction of the X-ray tube used by him, a model of the 1,000,000 volt X-ray machine designed by Dr. Wood and used by him in giving treatments at Presbyterian Hospital, and a model of the 400,000 volt machine used generally in hospital practice.

—☆☆—

### "THE BIRTH OF A BABY" HAS ITS FIRST PUBLIC SHOWING

The first public showing in the United States was made in Minneapolis where it recently finished a run of three weeks. It was witnessed by 85,524 individuals. As the majority of those who saw it were between fifteen and forty-five years of age, it apparently reached one-third the population of Minneapolis in this age group. We quote from Minnesota Medicine, April, 1938: "The audiences in Minneapolis reacted in a wholesome fashion. Sensation seekers were disappointed, as the film is not a sex picture. There was no age limit at the box office which



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enabled families to come together. High school students were admitted without question as sex is developing during this age period. Many parents wisely concluded that it was better for their children to get reliable information in a much better way than they were able to give it. If the children seemed too young, they were called to learn their wishes in the matter. During the entire three weeks' exhibition of the picture, no complaints were received. On the contrary, many people went out of their way to thank those responsible for its production."



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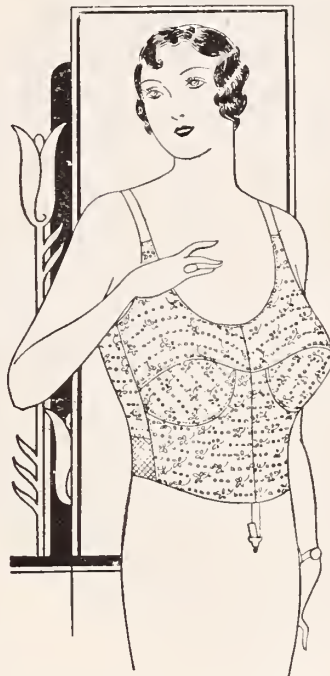
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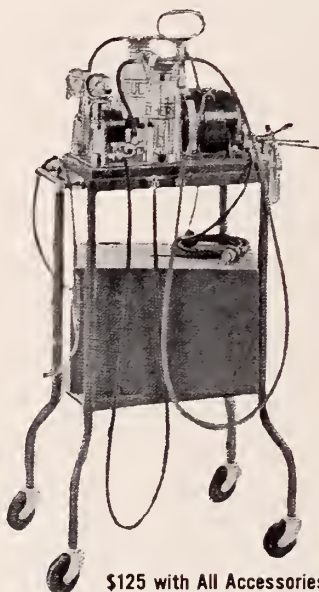
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Editor-in-Chief - STANLEY B. WELD, M.D.,  
179 Allyn Street, Hartford, Connecticut

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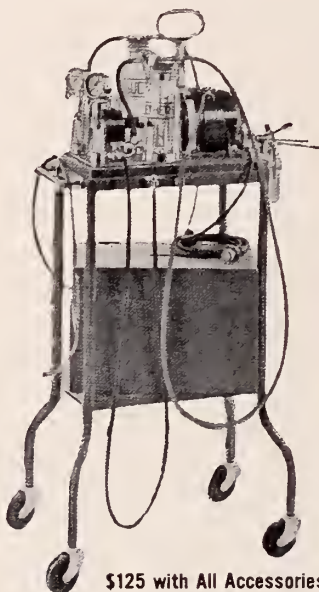
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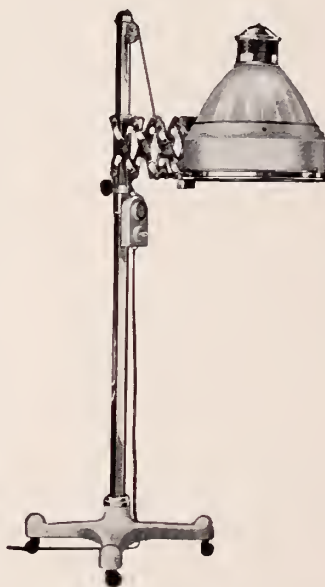
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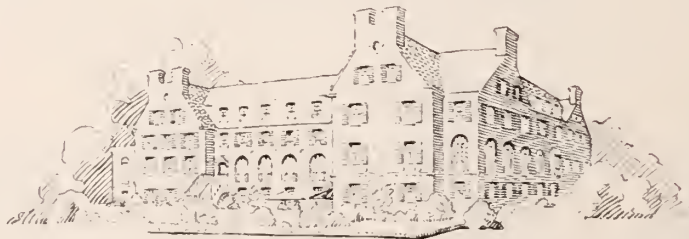
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## *MESSAGE FROM THE PRESIDENT*

The annual meeting of the State Society for 1938 is now history. Our thanks are due to the members of the entertainment and program committee and to all who had a part in making the meeting the success that it was.

Your President has already begun the pleasant duty of visiting the component Medical Societies throughout the State. It was his pleasure, on June 9th, to visit the Norwalk Society and there extend the felicitations of the State Society to the member, in whose honor the meeting was held, Dr. Arthur N. Clark. Dr. Clark has been practicing medicine since 1883 — 35 years, and his obstetrical record exceeds 5000 cases.

Subsequent meetings among the various groups can only confirm an already strong conviction that the State Society is made up of a great number of versatile individuals.

There was wisdom and truth in the statement of the retiring President, in his Presidential address, that the solution of the present day medical economic puzzle could best be solved by a solution of the general economic problem. If we and others concentrate on the latter, there is no doubt that succeeding days will find our lives in medicine more comfortable and more happy.

The success of the Connecticut State Medical Society, over these many years, has been attained only through self sacrifice, cooperation and loyalty. Your President feels it superfluous to ask for a continuation of these attributes which have been given so spontaneously and unselfishly in the past.

HUGH B. CAMPBELL, M.D.

# JOURNAL of The Connecticut State Medical Society

VOL. II.

JULY, 1938

No. 7

## 14th Clinical Congress Program

*(All times given are daylight saving time)*

TUESDAY, SEPTEMBER 20, 1938

Auditorium, Sterling Law Buildings

Stanhope Bayne-Jones, M.D., Presiding

### A.M.

#### Pyelitis in Pregnancy.

Dr. Nicholson J. Eastman, Obstetrician-in-Chief, Johns Hopkins Hospital, Professor of Obstetrics, Johns Hopkins University, Baltimore.

A brief review of the etiology of pyelitis in pregnancy; discussion of treatment, particularly the relative value of alkalis, ammonium mandelate and sulfanilamide. Indications for interruption of pregnancy are outlined and importance of post-partum follow-up emphasized.

#### Surgery in Pulmonary Disease.

Dr. Edward D. Churchill, Professor of Surgery, Harvard University Medical School, Boston.

#### Experimental Observations on the Pathogenesis and Treatment of Essential Hypertension.

Dr. Harry Goldblatt, Professor of Experimental Pathology and Associate Director of the Institute of Pathology, Medical School, Western Reserve University, Cleveland.

Hypertension similar to the benign and malignant phases of human essential hypertension have been produced experimentally by constricting the main renal arteries or aorta just above the origin of these arteries. The results of a series of studies of the pathogenesis of this type of hypertension show that the responsible mechanism is humoral and not nervous. The lecture will deal with the application of these experimental results to the problem of the pathogenesis and treatment of human essential hypertension.

### FIVE MINUTE TALKS

#### Bromide Intoxication from the Standpoint of Psychiatry.

Dr. Paul W. Preu.

#### Sciatic Neuralgia and Nucleus Pulposus.

Dr. William J. German.

#### Testosterone for the Treatment of the Eunuchoid State.

Dr. Kenneth W. Thompson.

#### Coxodynia.

Dr. Edward W. Foster.

#### Treatment Pruritis Ani.

Dr. Edward H. Kirschbaum.

### LUNCHEON

Sterling Law Buildings

### P.M.

### PANEL DISCUSSIONS

#### Symposium on Pyelitis in Pregnancy.

Dr. Arthur H. Morse, Chairman.

#### Symposium on Surgery in Pulmonary Disease.

Dr. Gustaf E. Lindskog, Chairman.

#### Symposium on Experimental Observations on the Pathogenesis and Treatment of Essential Hypertension.

Dr. John P. Peters, Chairman.

### SECTION MEETINGS

Open to all interested

#### Section on Radiology.

Dr. Kenneth K. Kinney, Chairman.

Dr. Grantley W. Taylor, Boston.

#### Management of Regional Lymph Nodes in the Treatment of Carcinoma

WEDNESDAY, SEPTEMBER 21, 1938

Auditorium, Sterling Law Buildings

Hugh B. Campbell, M.D., Presiding

### A.M.

#### The Treatment of Pneumonia.

Dr. Henry T. Chickering, Assistant Professor of Clinical Medicine, Columbia University, New York City.

#### The Role of Vitamins in Health and Disease.

Dr. Cornelius P. Rhoads, Associate Member of the Rockefeller Institute for Medical Research, New York City.

A general review of the terminology, chemistry, and physiology of the vitamins will be given as an introduction. Clinical observations concerning the disease states in which vitamin deficiency is either primarily causative or secondarily important will be presented. The various factors interfering with the proper absorption and utilization of vitamins will be discussed. Finally, certain clinical hints concerning effective therapy will be illustrated.

#### Certain Disorders in Speech, Reading, and Writing in Children and some resulting Behavior Disorders.

Dr. Samuel T. Orten, formerly Professor of Neurology and Neuropathology, Columbia University, New York City.

Several typical groups of disorders in the development of the language function — notably, delayed and defective speech, stuttering in childhood, the reading disability (strephosymbolia) and the special disability in writing will be briefly presented from the standpoint of their possible etiology, their diagnosis and treatment and some of the more common patterns of behavior disorder associated with each or arising therefrom will be discussed.

### FIVE MINUTE TALKS

#### Virus Proteins.

Dr. Stanhope Bayne-Jones.

#### Endocrine Treatment of Undescended Testicle.

Dr. Clyde L. Deming.



**The Treatment of Undulant Fever.**

Dr. Wilder Tileston.

**Carcinogenic Substances.**

Dr. Abraham White.

**Renal Calculus and Relation to Parathyroid and Diet.**

**Hypoglycemic and Metrazol Treatment of Dementia Praecox.**

Dr. Richard Goldstein.

**LUNCHEON**

Sterling Law Buildings

WEDNESDAY, SEPTEMBER 21, 1938

**P.M.**

**PANEL DISCUSSIONS**

**Symposium on the Treatment of Pneumonia.**

Dr. Francis G. Blake, Chairman.

**Symposium on the Role of Vitamins in Health and Disease.**

Dr. Paul H. Laviertes, Chairman.

**Symposium on Certain Disorders in Speech, Reading and Writing in Children and some Resulting Behavior Disorders.**

**Medical Amphitheater**

**Laboratory for Medicine and Pediatrics**

Dr. Eugen Kahn, Chairman; Dr. Samuel T. Orten (by invitation), Dr. James M. Cunningham, Dr. Arnold L. Gesell, Dr. Marian C. Putnam, Dr. Robert Salinger.

1. The early diagnosis of behavior defects and deviations.
2. The practitioner's role in advising about developmental problems of the preschool age.
3. Problems of older children as seen in general practice.
4. Behavior problems which seem to be secondary to language disorders.
5. Emotional problems of the sick child and his family as encountered by the pediatrician.

**SECTION MEETINGS**

Open to all those interested

**Section on Dermatology and Syphilology.**

**Section on Neurology and Psychiatry.**

Dr. Daniel P. Griffin, Chairman.

Dr. Harold G. Wolff, Assistant Professor of Medicine in charge of Neurology at the New York Hospital, Payne-Whitney Psychiatric Clinic.

**Migraine and its Treatment**

**Connecticut Public Health Association.**

Dr. Benjamin G. Horning, Chairman.

THURSDAY, SEPTEMBER 22, 1938

Auditorium, Sterling Law Buildings

Joseph I. Linde, M.D., Presiding

**A.M.**

**Rheumatic Fever.**

Dr. T. Duckett Jones, Research Director, House of the Good Samaritan, Associate in Medicine, Harvard Medical School, Assistant in Medicine, Massachusetts General Hospital.

Short summary of observations on the etiology of rheumatic fever. The chronicity of the disease, with especial reference to the signs and symptoms of low-grade rheumatic fever and their importance with regard to the natural history of rheumatic fever. The treatment of rheumatic fever and results to be expected from careful follow-up and long bed care.

**Diagnosis and Treatment of Ulcerative Colitis.**

Dr. Z. Bercowitz, Assistant Clinical Professor of Medicine, New York Post-Graduate Medical School of Columbia University, Assistant Visiting Physician 2nd Medical (Cornell) Division, Bellevue Hospital.

A brief statement of simple diagnostic methods which the practicing physician can use in his private office will be followed by a brief discussion of the differential diagnosis of ulcerative colitis especially with reference to amebic dysentery. It has been found in a series of about 2,400 patients that the most common error has been the diagnosis of *Entameba histolytica* in patients who were suffering from chronic ulcerative colitis, or even carcinoma of the sigmoid. The major portion of the paper will be devoted to a discussion of treatment of chronic ulcerative colitis, giving the details of medical management; this will include diet, medications, vitamins, vaccines, and the newer trends of thought in the handling of these problems. A discussion of the surgical indications in chronic ulcerative colitis will be given also.

**Thrombophlebitis.**

Dr. John Homans, Clinical Professor of Surgery, Medical School of Harvard University.

Discussion of the influences leading to thrombophlebitis, particularly the familiar thrombosis, associated with injuries, debilitating diseases, operations, and bed-life in general, and consideration of fixed and insecure thrombi. The clinical varieties of thrombophlebitis — pelvic, femoro-iliac, popliteal, and the peculiar forms characteristic of thrombosis in normal and in varicose superficial veins. The significance of very silent forms as compared with outspoken thrombophlebitis, particularly their relation to pulmonary embolism. Modern ideas relating to the prevention of the thrombophlebitis and the treatment of its various established forms.

**FIVE MINUTE TALKS**

**Sulphanilamide — What is it and how to use it.**

Dr. Francis G. Blake.

**Sulphanilamide in Hemolytic Strep. Infections.**

**Sulphanilamide in Urinary Infections.**

Dr. Chris H. Neuswanger.

**The U Wave in the Electrocardiogram.**

Dr. Louis H. Nahum.

**Toxoid in Tetanus.**

Dr. Joseph I. Linde.

**Electric Aids to Hearing.**

Dr. Creighton Barker.

**LUNCHEON**

Sterling Law Buildings

## P.M.

## PANEL DISCUSSIONS

**Symposium on Rheumatic Fever.**

Dr. John R. Paul, Chairman; Dr. T. Duckett Jones (by invitation), Dr. May Wilson, Dr. Robert Salinger, Dr. H. M. Marvin, Dr. Alvin F. Coburn.

1. The present status of the effect of climate in therapy and prevention of rheumatic fever.
2. An outline of convalescent treatment, particularly treatment outside of institutions.
3. Methods of deciding whether rheumatic fever is active or inactive.
4. Salicylate therapy in rheumatic fever in which joint symptoms are absent or minimal.
5. Relation of chorea to rheumatic fever.
6. Relation of age to prognosis.
7. Diagnosis of rheumatic heart disease.

**Symposium on Diagnosis and Treatment of Ulcerative Colitis.**

Dr. Oliver L. Stringfield, Chairman.

1. Deficiencies and diets in relation to colitis.
2. Amoebic and bacillary dysentery.
3. Surgery in relation to colitis.
  - a. Indication.
  - b. What to be expected.
4. X-ray.
  - a. Preparation of plates.
  - b. Results of X-ray findings.
5. Sigmoidoscopic examination.
  - a. Indication.
  - b. Method.
  - c. Findings.
6. Bacteriology, cytology, and bacteriophage.

**Symposium on Thrombophlebitis in the Legs and Pelvis: Clinical Varieties and their Relation to Pulmonary Embolism.**

Dr. Ashley W. Oughterson, Chairman.

## THREE DAY COURSES

**Contraceptive Devices.**

Dr. Margaret Tyler.

TUESDAY, SEPTEMBER 20, 1938

**Meeting open to all Registrants of Congress**

1. Address by speaker of national prominence.
2. Film on the technique of contraception, (one hour).

WEDNESDAY, SEPTEMBER 21, 1938

Demonstration on the model, of fitting of diaphragms and various other contraceptive equipment.

Group limited to ten

Time: Two hours together

THURSDAY, SEPTEMBER 22, 1938

(Same as Wednesday)

**Diagnostic Roentgenology.**

Drs. Hugh Wilson, Michael D'Amico and Lawrence Mucci.

TUESDAY, SEPTEMBER 20, 1938

Diseases of Bone in children.

2-4:00 P.M.

WEDNESDAY, SEPTEMBER 21, 1938

Common Lesions of the Heart and Great Vessels.

2-4:00 P.M.

THURSDAY, SEPTEMBER 22, 1938

Non-tuberculous pulmonary lesions.

2-4:00 P.M.

**Methods of Fracture Treatment Advocated for Fracture Surgeons.**

Dr. Merrill K. Lindsay.

TUESDAY, SEPTEMBER 20, 1938

2-4:00 P.M.

WEDNESDAY, SEPTEMBER 21, 1938

2-4:00 P.M.

THURSDAY, SEPTEMBER 22, 1938

2-4:00 P.M.

Film on application of emergency splints.

**Recognition of Premalignant and Malignant Lesions of the Skin.**

Dr. Ellwood C. Weise.

TUESDAY, SEPTEMBER 20, 1938

- A. Demonstration of premalignant lesions of the skin (lecture and lantern slides).

1. Nevi
2. Keratoses
3. Radiodermatitis
4. Chronic Ulcers
5. Bowen's Precancerosis (?)
6. Miscellaneous Conditions

WEDNESDAY, SEPTEMBER 21, 1938

- B. Demonstration of malignant lesions of the skin (lecture and lantern slides)

1. Basal-Cell Epithelioma
2. Squamous Cell Epithelioma
3. Basal-Squamous Cell Epithelioma
4. Melanoma, Menocarcinoma, Nevocarcinoma
5. Idiopathic Multiple Hemorrhagic Sarcoma
6. Lymphoblastomas

THURSDAY, SEPTEMBER 22, 1938

- C. Panel Discussion of premalignant and malignant lesions of the skin for members taking the course.

1. Dr. M. J. Morrissey
2. Dr. Ellwood C. Weise
3. Dr. M. J. Strauss
4. Dr. A. W. Oughterson
5. Dr. E. Myles Standish



## Address of Retiring President\*

CHARLES H. TURKINGTON, M.D., Litchfield

In this atmosphere of good fellowship and relaxation, one would scarcely believe that we are living in such a troubled world. No doubt many of you would choose to forget. It ought to be my duty to let you remain in this state of oblivion a few hours longer, but I am afraid you are doomed to disappointment. But before you reach the full state of disappointment, I will interpose a few words which will not disturb your equanimity, and mayhap get you in a more amiable mood for what will follow.

Ever since we have known we were coming to New London County for this annual meeting, we have been looking forward with keen anticipation, and so far we have not been disappointed. This is the first time in the history of the Connecticut State Medical Society that the annual meeting has been held in New London County. However, it is quite fitting that this county should now have this belated honor. For, going back to earlier days, it is worthy of note that a group of eleven physicians in this county in 1763 made the first effort to obtain from the Colonial General Assembly a charter to form a Connecticut Medical Society. This request was refused, as were several others of like nature in the years following. The fear of creating a monopoly appears to have been the principal reason for not granting a charter. However, persistence was a characteristic of physicians in those days as well as the present. Although many physicians seemed to have been discouraged, the physicians of New Haven County took up the battle, renewed the request and stimulated their brethren throughout the state. So strong were their arguments and so strenuous their efforts that success became possible and the Medical Society of Connecticut was incorporated in 1792. Thus we were born, and to New Haven County goes the credit of the accouchement forcé, but to New London County must go the credit of conception.

So, having complimented our hosts by recalling from the past a little that New London County has contributed to Connecticut medical history,

I now jump quite a span and come down to modern times and these days when all the world, including our own country, is in a state of confusion, social, economic and political, and in which medical economics, too, is disturbing our serenity. Though medical economics is not new except in name, as such, it has taken the center of the stage this past year, and has been a popular subject for discussion. I, too, have fallen under the spell, though I had hoped to contribute something more original in character, and should like to discuss some phases, though inadequately as you must realize in a short space of time.

History-making is at a rapid pace. We are told we are facing great social and economic changes and, with these, medicine itself is undergoing a change. We, as physicians, are having our imperfections brought to light. We are on the carpet. Not only are we badgered by members of our own profession, but the public and the press seem to have joined in the condemnation. Much evidence of the short-comings of American Medicine has been accumulated. We have read editorials and articles which, if not actually threatening dire things, have suggested them. The idea seems to prevail in some quarters that we, as physicians, are running some kind of racket, and withholding something that is the people's due. We should be compelled to give up whatever it is we have and are holding. And if we don't reform ourselves it is intimated the government will step in. I think I have not exaggerated.

What is this mysterious something? I assume it is the belief that we, as physicians, have bound ourselves together to make the cost of medical care so prohibitive that we rob the people of something which is considered their due. True, we recognize the high cost of medical care. This very thing has been a troublesome question for some time, and this very question still remains to be answered, but not by me. The paying public demands much today from physicians and

\*Read at the Annual Meeting, Groton, June 2, 1938.

hospitals, and this same public ought to, and does know it costs money to get good service.

But this is not the question that has engaged our attention exclusively this year. Medical science has advanced so rapidly that the great problem today is the application of these advancements so as to provide adequate medical care to the under-privileged and low-income groups and to place these great advances at the disposal of all the people, rather than the privileged only. This would seem to be a worthy ambition, and one that should not cause so much bitterness, criticism and misunderstanding. But it seems the under-privileged, institutions, even physicians themselves must have help, and this help should be a matter of the government itself, and a pronouncement was made that the health of the people should be a matter of government concern. This is not a new principle, for now, as in the past, the health of its people has always been a matter of government concern and this government has been and still is a great contributor to the advancement of medical science and preventive medicine.

However, we began to sit up and take notice. At last that spectre of socialized medicine, so long on the horizon, was becoming a reality, and the fireworks started. A medical economic problem, though not new, came into more prominence and was added to all the other problems making up our confusion.

We are wont to think our social and economic problems today are new, born of the last few years, that the times are different, that government and the people alike never before had to cope with similar situations. I should like to quote from some writings that came to my attention recently:

"To anyone, who, from his own quiet retreat and in the hour of calm reflection, looks out on the agitated world, a spectacle of no ordinary interest is presented. The forms, customs and faces of society, are everywhere undergoing a radical change. With scarcely an exception, systems of government and modes of life are — some indeed more, some less rapidly, yet both surely,— verging to a revolution . . . In this conflict of opinions, this breaking up of former things to re-compound and re-cast them in a mold better fitted for the coming latter-day,

what shall be the fate of our own country? Extensive as it is, covered with a rapidly increasing and heterogeneous population, and subject to influences so varied, will it continue prosperous and happy, and in the enjoyment of the name and privileges of a republic? This question is yet to be decided — decided too, doubtless, in the lifetime of the present generation. We are not fond of boding ill; still, we must confess our fears: and but for our trust in God, that he has destined these United States to aid his own great design of reclaiming a lost world to himself, we should be tempted to despair. Many are the causes at work, seeming to prognosticate, that this our experiment, vaunted with such confidence for half a century, may end in a failure. The stability of our constitution and frame of government, is to say the least, more problematical now than formerly. Guarded as it was by the wise architects who planned and reared the noble fabric, experience has shown it to need additional guards, in essential points, to protect it from assaults, which the prophetic minds of those keen-sighted men scarcely anticipated. The influx of foreign immigration, the reckless partisanship of political aspirants, the general spirit of ultraism, the agitating nature of various subjects engaging public attention, with the growing corruptions of all classes; the outcry against the wealthy and educated, and the bitter hostility to morals, worth and religion, which breathes out from so many bosoms, and stamps itself on countless productions of the press; these and similar things are among the painful indications, that a harder struggle is before us. A leaven of iniquity is fast diffusing itself, and powerfully, though in some cases almost imperceptibly, converting the elements of our national prosperity into materials of disorganization, and for the subversion of our hopes and prospects."

With only minor changes, could this not be an editorial of yesterday? It could, but these were the convictions of Lyman Beecher expressed one hundred and three years ago, during the presidency of Andrew Jackson, who it would seem had some problems to handle not unlike those of today.

It would be impossible to recall all that has gone on these past hundred years. Suffice it to say that our government is still intact, though



some might take exception to that statement. There have been ups and downs, wars, depressions, periods of great prosperity, political upheavals, epidemics, generations of men and women, playing, working, loving, fighting, hoping, dying. Today there reigns a confusion of such magnitude that we are wondering what the world is coming to and I am of the opinion that the same question has been asked in many periods before. History would lead us to believe that civilization goes in cycles, and this would seem to be a phase in a cycle. So far as this country is concerned we have weathered depressions before and no doubt we shall weather this one, but at present we are overwhelmed by our very complexities and gripped by an inadequacy so great that no wonder we have the "jitters."

No doubt in the past problems seemed just as difficult to those attempting to solve them. Our so-called advancements, more complex manner of living, with all that science and invention have given us, make our problems seem greater, especially so as they are at our very door, while problems of the past have been dimmed by time and softened memory. But shouldn't our problems in the light of these modern days be solved more easily? One might think so, but our very advancements, instead of aiding, seem only to add to our complexities. In times of prosperity, peace and quiet we bask in the sunshine of our superiority and self-sufficiency. Then suddenly something happens: economic troubles appear, we lose that self-sufficiency, again we grope in the dark, and are mired in the "slough of despond." Problems of all kinds grow in size and increase in number. Emotions take the place of reason. We then begin to seek solutions to overcome our ills, and seek these solutions more often than not in emotions mistaken for reason.

But we, as physicians, are not only disturbed by general economic problems, but have medical economic problems in addition to add to our woes. We are apt to forget that medical problems of an economic nature do not exist altogether by themselves, but are intimately associated with accompanying social and economic states. So in attempting to solve our medical economic problems, we must look afield and view them in their relation to general economic situations. So could our general economic problems

be cured or brought to some degree of stability, our medical problems would be much lessened. Isn't it incredible, though, that with all our boasted enlightenment, and experiences of the past, we, as a people, are so helpless to solve our problems of an economic nature, but as has been said by a learned philosopher, "The only thing man learns from history is that he learns nothing from history." Yet the public expects us physicians to solve their medical economic problems and, failing this, evidently has a blind faith that government intervention is the solution. Some physicians even have this idea, too. The government has shouldered much. It seems to have had plenty of confidence, but to date all solutions to cure our economic ills seem to have failed. Theorists and economists have had their day. Money has been lavishly expended. "Pump-priming" has had its try, but still we are in our economic throes.

Though it is not my purpose, in this paper, to suggest a solution that might bring about economic recovery, I, as well as you, can recall in our experiences cases where the patient with lessened medication has done very well. And if our present depression is a disease that has to run its course, the answer might be more therapeutic nihilism — at least this has not been tried.

But viewed in the light of failure in solving economic problems, could we expect the government to solve our medical problems? I think not. And if the government should intervene, is there any reason to believe that this would not mean federal control? We are told there is no reason to fear this. On the other hand there is very little assurance or confidence that this would not be so. Our government has developed a great fondness for control in many fields in our "planned economy". As failure to produce the desired results follows, enthusiasm for government control wanes. So as we see failures in other fields, we might seem justified in having some fear in our own fields.

True, we already have federal aid and may have to have more. So far this has not worked to any disadvantage, and it can not so long as it is confined to the functions which it is intended to promote and which we believe properly belong to the government.

Could the government solve our medical eco-

conomic problems the cost would be staggering and any suggested plans calling for the outlay of more millions would delay our economic recovery and would delay the lessening of our medical economic problems. It would seem the great general problem is economic betterment. Until this occurs I see little chance of solving our medical economic problems.

We, as a people, in times of economic betterment have a habit of developing quite an individualistic independence. In times of great stress and emergency we even submit to regimentation, though we cannot stand it long. It is contrary to the great principles laid down by the founders of our government. So I believe the American people would never be satisfied with a punch-card medicine or any system of so-called "socialized medicine" patterned after any existing systems, for if testimony is correct these are rank failures. Certainly we, as physicians, don't want it. So it would seem, if these statements are true, and I believe they are, that the solution for adequate medical care must be that solution in which the people themselves will participate by their own willingness, and in which physicians alike will cooperate. For without cooperation any proposed solution would be only another failure.

Already, I believe, socialized medicine, as such, with its implications of federal control is passing out of the picture as a desirable solution to our medical economic problems. So we must seek further. But how can any solution be accepted when there is no agreement even among physicians themselves as to the workability of any of the solutions and no accurate knowledge of what the needs are?

We are still in a state of confusion ourselves as well as those who are attempting to solve general economic problems, and no wonder. After all is said and so little done, it would seem we have over-shot the mark. Here we are discussing solutions to a problem when we do not know what the problem is except in a general way. It

would seem our great task is first to determine what our problem embodies. Already on an extensive scale the attempt is being made by the American Medical Association to get some data. This cannot be done, however, without the cooperation of us all. If reasonably accurate data can be obtained and we have some knowledge of the real situation, then and then only shall we be in a position to attempt the solution of our great problem. Once we have an understanding of the problem, I believe that a standardized solution, however, would not be applicable in this vast country of ours; conditions vary so in different localities. Thus, I believe, the solutions must be made by the localities themselves, and that solutions must come from within rather than from without. Localities must attempt to solve their problems as they appear to them, as we in Connecticut must attempt to solve our problems as they appear to us. This does not mean that we in Connecticut are so self-centered that we are unmindful of, or unsympathetic with, the rest of the country in these days of stress, but it does mean that we should attempt to put our own house in order as our first duty.

I believe we, as physicians, have come to a greater realization of our responsibilities. We have a sincere desire and also a determination to solve the problem, when we know what the problem is. At least we have learned that we as physicians can no longer live in a little world of our own, but must now and in the future be a part of the great social and economic whole.

We, as physicians, shall do our part in attempting to solve this great problem. However, it cannot be solved by us alone. Rather shall we have to have a fuller realization of responsibility to be shared in by state, municipalities, social agencies, a public better enlightened, physicians themselves, making for a closer cooperation; all working for the common good and toward that goal of adequate medical care for all, especially for those whom we choose to call the indigent and under-privileged.

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# The Treatment of Congenital Syphilis

PAUL HARPER, M.D., Bridgeport, Conn.

Treatment of Congenital Syphilis requires a plan of continuous therapy, alternating a course of an arsenical drug with a course of bismuth. An arsenical course comprises eight injections at weekly intervals to be given in sequence with a series of eight bismuth injections, also at weekly intervals. The arsenical is given first when it is important to make the patient non-infectious as rapidly as possible. This is safely done in selected infants when the dose is adjusted to the patient. In heavily infected infants and in older children with the late manifestations of hereditary syphilis, it is safer to give the bismuth first. An occasional premature or very debilitated infant with florid syphilis and anemia will be helped by one or two preliminary transfusions of blood. Heavily infected infants and preferably all should be given the first course of therapy in hospitals. Wassermann tests are taken at the beginning of each course.

This plan of therapy is continued for a minimum of six months after the patient is serologically and clinically negative. In no case is treatment stopped short of one year. If the blood Wassermann remains positive but there is no clinical evidence of syphilis (Wassermann fast) treatment is continued for a minimum of two years. Patients who fulfill these requirements for suspending therapy are checked by physical examination and serology at three month intervals for a year. If still negative, the patient is checked at six month intervals until five years have passed, and then less frequently for an indefinite period. Examination of the spinal fluid about once yearly is part of the checking procedure.

Of the arsenicals, neo-arsphenamine given intravenously is the drug of choice. In infants the scalp veins are usually surprisingly large and easy to inject if the hair is first shaved from the head above and in front of the ears. The full dose of neo-arsphenamine, 0.015 grams per kilogram of body weight should be approached gradually, starting with one-quarter or one-half the calculated dose and progressing to three-quarters and finally the full dose. In heavily infected infants the initial injection may be one-eighth the calculated amount or even less.

Neo-arsphenamine may also be given intramuscularly but a less irritating arsenical for this route is sulpharsphenamine, the full dose being 0.020 to 0.025 grams per kilogram of body weight. All arsenicals are given well diluted and the injection made slowly so that it may be stopped in the event of a general reaction.

Bismuth is given as bismuth potassium tartrate or bismuth subsalicylate in an oil vehicle. Injections are made into the gluteal muscles in the upper and outer quadrant of the buttocks. The buttock is massaged for several minutes after each injection. The dose is:

<i>Bismuth</i>	<i>Age in Years</i>
0.025 grams	Under 2
0.05 grams	2 to 6
0.1 grams	Over 6

Acetarzone or stovarsol is an arsenical which may be taken by mouth. Early reports showed high anti-leptic potency but also a higher incidence of unfavorable reactions than from arsenicals given parenterally. Recent reports have been cautiously more favorable. A widely used method of dosage is from Bratusch-Marrain:

<i>Number of Days</i>	<i>Daily Dose in Grams per Kilogram</i>
7	0.005
7	0.010
7	0.015
42	0.020

Three such courses of acetarzone are given alternating with courses of bismuth. The acetarzone is dissolved in milk or water and given one-half hour before feeding. At first given once daily it is later offered in two or three divided doses as the quantity increases.

On each visit under any plan of treatment the patient is weighed, the urine examined for albumin, cells or casts, the mouth inspected for stomatitis and the eyes and skin for jaundice. Older children or parents are questioned about itching, vomiting, nausea, headaches or other unusual symptoms following the last injection. If these danger signals are carefully observed and the dosage correctly regulated severe reactions will be rare.

# The Treatment of Bronchiectasis by Pulmonary Lobectomy\*

## Summary of Ten Consecutive Cases

GUSTAF E. LINDSKOG, M.D.\*\*

The term, bronchiectasis, is a pathological designation referring simply to a dilatation of the bronchi. It has been employed clinically, however, to describe a large group of pulmonary lesions which are not necessarily related with respect to etiology, but which are characterized by subacute or chronic non-tuberculous inflammatory lesions, affecting primarily the bronchial tree of one or more lobes, with varying degrees of secondary involvement in the surrounding lung parenchyma.

The etiology of the bronchiectatic state in an individual case may be quite definite or it may be very obscure. An obstructing foreign body lodged in a bronchus may result in bronchiectatic changes in that portion of the bronchial tree distal to the obstruction. Other forms of bronchial obstruction such as that due to tumor or extrinsic pressure from pathologically enlarged lymph nodes and aneurysms may result in this condition. A continuing soilage of a portion of the bronchial tree with pus draining from a lung abscess, or from an untreated empyema which has ruptured into the bronchial tree is not infrequently followed by progressive bronchiectatic changes. An association of chronic suppuration in the accessory nasal sinuses has been mentioned, but the exact relationship is not established. The disease is particularly one of childhood and early adult life. It has been observed at autopsy in stillborn or very young infants, in which case it probably represents a developmental abnormality of the bronchial tree. The failure of the fetal atelectatic lung to expand properly at birth has been suggested as the cause for certain otherwise obscure cases in which one or both lower lobes are involved with saccular dilatations.

In a very considerable proportion of cases, however, the onset of symptoms is insidious and slowly progressive. The only suggestive point in

the history may be an antecedent bronchiolitis or bronchopneumonia following upon influenza, whooping cough or measles. It has been assumed that a peculiar type of bronchial damage resulting from these processes has paved the way for the development of bronchiectasis.



Fig. 1. Posterior view of chest wall and trunk, Patient #4 during convalescence from left upper lobectomy.

When the symptoms of the condition are mild or moderate, the patient may get along well for years without definite treatment, or with very conservative medical measures such as postural drainage once or twice daily, a change of climate, expectorant mixtures or sedatives. In some in-

\*From the Department of Surgery, Yale University, the School of Medicine, New Haven, Connecticut.

\*\*Associate Surgeon, New Haven Hospital.



stances repeated bronchoscopic aspirations for drainage have been a means of converting a seriously handicapped patient into one better adapted to ordinary social and economic existence. The thoracic surgeon is usually called upon to see only the advanced case in which persistent and exhausting cough, abundant foul sputum, recurring hemoptyses, or repeated attacks of pneumonitis have created a situation intolerable to the patient and his family and even threatening the very existence of the individual. Without surgery the advanced case is usually doomed to a life of chronic respiratory invalidism and an eventually lethal outcome from pneumonia, pul-

monary hemorrhage, secondary infection or amyloid disease.

The operation of pulmonary lobectomy is not a recent development technically, but until modern technic made it safe, the mortality was prohibitive and the therapeutic results not infrequently poor. In 1914 Willy Meyer collected 16 cases from the literature with a mortality of 50%. In 1935 Graham summarized all reported cases, 212 in number, with 34% mortality. The pioneer work of Shenstone, Brunn, Graham, Churchill and others has so improved the technic and therapeutic results that the operation has become one of great value. Churchill was able

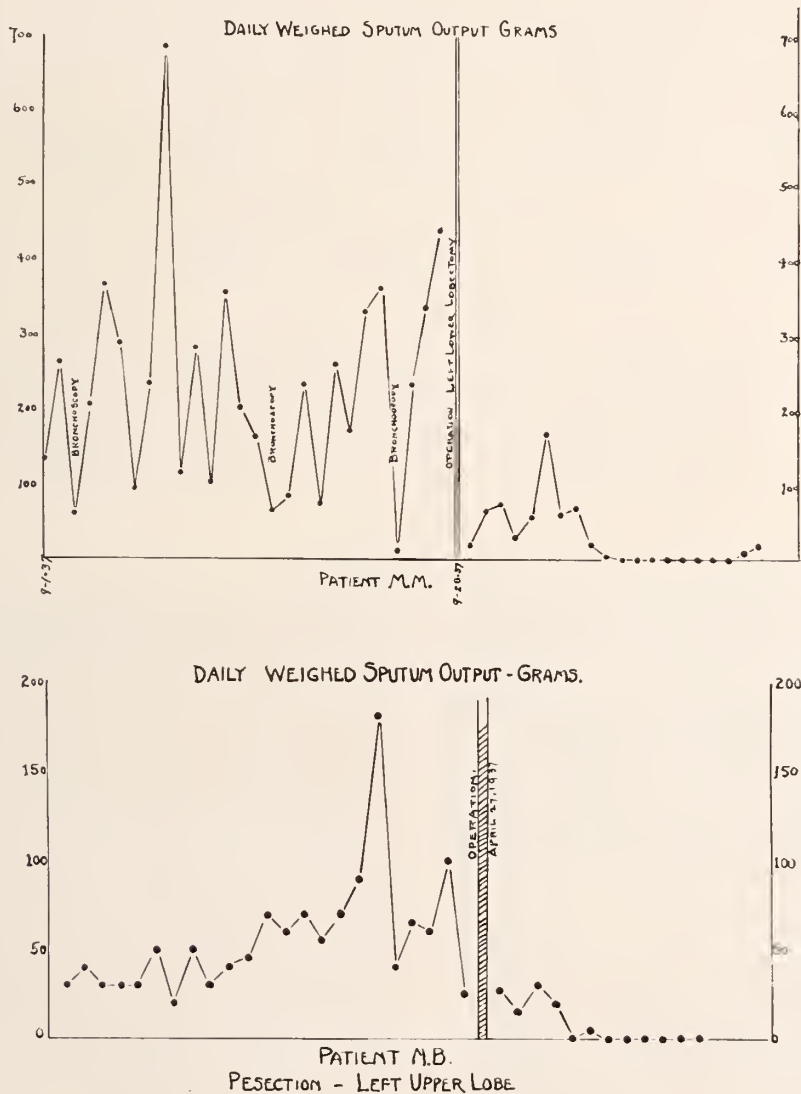


Fig. 2. Chart of sputum output (weighed 24 hour specimens) in the immediate pre- and post-operative periods. Cases #9 and #4.

<i>Case</i>	<i>Initials</i>	<i>Age</i>	<i>Sex</i>	<i>Duration Symptoms</i>	<i>Sputum Maximum Daily Grams</i>	<i>Hemop- tysis</i>	<i>Lobes Involved</i>	<i>Operative Stages</i>
1.	J.K.	21	F	15-20 yrs.	170	None	R.L.L. L.L.L.	1st stage only
2.	W.D.	26	M	32 months	250	Severe	R.L.L.	One
3.	M.A.	22	F	19 months	190	Mild	R.M.L. R.L.L.	One (R.M.L.)
4.	N.B.	10	M	18 months	180	Severe	L.U.L.	One
5.	G.H.	17	M	10 months	150	None	L.L.L.	Two
6.	E.M.	22	F	12 years	50	Severe	L.L.L.	Two
7.	F.C.	27	M	15 months	570	Severe	R.M.L. R.L.L.	One
8.	G.R.	16	M	14 years	70	Severe	R.M.L. R.L.L. L.L.L.	One R.M.L. R.L.L.
9.	M.M.	18	M	3 years	690	None	L.L.L.	One
10.	I.S.	43	M	6 months	365	Severe	R.U.L. R.M.L.	One

to report in 1937 the largest series of lobectomies to date, 49 cases with 3 deaths, a mortality of 6.1%.

Our own series of ten cases began in December, 1935. The patients ranged in age from 10 to 43 years. There were three females and seven males. In two cases the disease was bilateral, in the other eight unilateral. The anatomical distribution of the disease in the unilateral cases was as follows:

Left lower lobe	3 cases
Right lower lobe	1 case
Right middle lobe	1 case
Right middle and lower lobe	1 case
Right upper and middle lobe	1 case
Left upper lobe	1 case

The shortest duration of symptoms prior to operation in any instance was six months, the longest 15-20 years. Cough and sputum were

present in all, the sputum varying from a few grams to over 690 grams daily. Hemoptysis was present at some time in seven of the ten cases, and was recurrent and severe (over two or three ounces at a time) in six. Clubbing of the fingers was present to a noticeable degree in seven instances and was quite marked in several of these.

Preoperative bronchoscopic studies were made in all cases, for many of which we are indebted to Drs. Norton Canfield and John Murtagh of the New Haven Hospital staff. Aside from any possible therapeutic effect, bronchoscopy is indispensable to verify the localization of the lesion as previously determined by physical findings and Roentgen examination; also to exclude the presence of an intrabronchial foreign body, stricture or tumor. Lipiodol injection by intra-tracheal catheter or the supraglottal drip method was always made of the suspected lobes and of



<i>Date of Lobectomy</i>	<i>Weeks Postoperative till Discharge</i>	<i>Present Condition</i>					
		<i>Sputum Gms.</i>	<i>Cough</i>	<i>Hemoptysis</i>	<i>Wounds</i>	<i>Gain in Weight Pounds</i>	<i>Result</i>
12-3-35	—	—	—	—	—	—	Death
10-8-36	8½	0-5	Slight	0	Healed	27	Excellent
3-2-37	10	25-50	Moderate	0	Healed	11	Poor
4-27-37	7½	0	0	0	Healed	8	Excellent
6-15-37	4½	0	Rare	0	Healed	16	Excellent
7-2-37	6	0	0	0	Healed	6	Excellent
9-7-37	8	0	0	0	Healed	18	Excellent
9-14-37	11	15-30	Slight	0	Healed	7	Fair
9-28-37	11	1-15	Slight	0	Healed	12	Excellent
3-1-38	In Hospital						

the contralateral lower lobe in the unilateral cases. Many sputum specimens were examined in each case to rule out acid-fast infection.

Operative success in these cases depends upon a close cooperation among the surgeon, assistants, anesthetist, bronchoscopist and nursing staff. We have routinely employed basal Avertin anesthesia followed by the introduction of an intratracheal tube and supplementary Cyclopropane-oxygen mixtures. The intratracheal tube is indicated to permit frequent aspiration of the tracheal-bronchial tree for removal of secretions from the affected lobe during operation, to allow positive pressure to be applied to the lung (although in our experiences this has rarely been necessary) and to maintain the freedom of the airway at all times. Cyclopropane has the advantage of inducing a satisfactory level of anesthesia with very high oxygen concentration

(85-90%); but is disadvantageous in being explosive, therefore precluding the use of the diathermy scalpel for dissection. We take this opportunity to acknowledge our great indebtedness in this series to Miss Edna Bander and Miss Alice M. Hunt of the anesthesia staff of the New Haven Hospital.

The operative removal of the affected lobe or lobes was carried out in one stage, if the pleural cavity was found obliterated by adhesions at the time of the primary operation. This was the situation in six of our patients. In three a two-stage operation was done, the first stage consisting simply of thoracotomy, exploration and dissection of the affected lobe, and the freeing up of the pulmonary ligament followed by a mechanical abrasion of the parietal pleura with gauze to promote the formation of adhesions. The chest was then closed without drainage and the actual

lobectomy performed two to six weeks later. In one a left lower lobectomy was performed in a single stage, although the pleura was not obliterated. At the time that the diseased lobe or lobes were removed, the remaining cavity in the thorax was drained with a rubber tube or intercostal catheter until the cavity was entirely obliterated. The closure of the remaining space is effected by a compensatory enlargement of the residual lobe or lobes, elevation of the diaphragm, shift of the mediastinum and some contracture in the bony thorax. Evidences of bronchial fistulae in the healing hilus appeared postoperatively in seven instances, usually during the second week. All closed readily and spontaneously without further procedures. The postoperative hospitalization ranged from five to eleven weeks.

### Results

There has been one operative death. In our first case, a severely diseased bilateral lower lobe lesion, the patient did not survive the first stage procedure, death being supposedly due to air embolism. The other nine patients are all living, the most recently operated upon one being still in the hospital. Six patients are apparently in excellent condition, either cured or so greatly improved as to be no longer respiratory invalids and able to lead a normal life. Four of these patients are completely free of cough and sputum, and two have occasional cough and sputum to a maxi-

mum of five or ten grams daily. The surviving bilateral case is considered much improved and in fair condition; sputum is still present to the extent of 15-30 grams daily, and the patient will perhaps require subsequent treatment of the remaining diseased left lower lobe. Only one patient is considered to be in poor condition. This patient had a middle lobe removed after several cautery operations had been performed by several surgeons for lung abscess. She still has remaining disease in the right lower lobe for which a lobectomy is contemplated this Spring.\*

The operative procedure leaves practically no external deformity of the chest as evidenced by the accompany photograph (Fig. 1) of the posterior chest of patient #4 for whom a left upper lobectomy was performed. Following operation a striking and not infrequently immediate reduction in the amount of cough and sputum occurs, this relief having been observed even following the first-stage type of procedure. (See Fig. 2). No patient has experienced a recurrence of hemoptysis. All have gained weight. None has suffered dyspnea after convalescence even with moderate exertion. Lung volume studies were carried out pre- and post-operatively in four of the ten cases, and no patient showed a reduction in the available respiratory space; one in fact (Case 5) demonstrated a significant increase. Further data on this subject will be reported in a separate publication.

\*Since the submission of this paper for publication a right lower lobectomy has been successfully performed on this patient. In addition, two other cases have been done with favorable course to date; one a two-stage removal of the right middle and lower lobes, the other a one-stage removal the middle of lobe including drainage of interlobar empyema. Thus far the above makes a total of 13 cases.



**Plate 1.** Figure 1. Case #2, W. D. Longi sections of excised right lower lobe and segment of rib. Note the multiple hilar cavitations and the marked fibrous contraction of the lobe.

Figure 2. Case #4, N. B. Longi section of excised left upper lobe. Note the large central cavity with thickened fibrous wall and associated bronchial dilatations, some containing inspissated debris.

Figure 3. Case #5, G. H. Longi sections of excised left lower lobe. Note the rather thin walled dilatations extending to the periphery of the lobe and associated with relatively little damage in the surrounding parenchyma.

Figure 4. Case #6, E. M. Longi section of excised left lower lobe. Note the marked granulation reaction in the thickened and dilated bronchi with extensive fibrous scarring of the parenchyma.



FIG. 1



FIG. 2

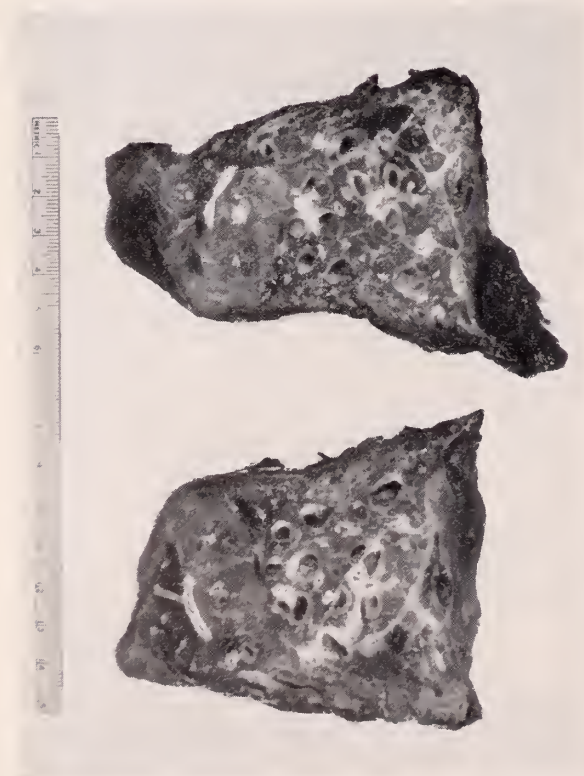


FIG. 3



FIG. 4





FIG. 1



FIG. 2



FIG. 3

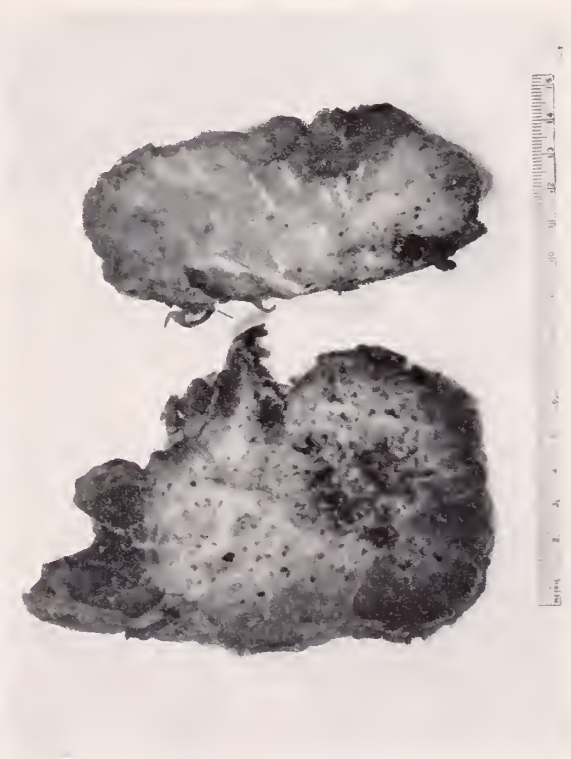


FIG. 4

**Plate 2.** Figure 1. Case #7, F. C. Longi sections of right middle (above) and right lower lobes. Note the fibrosis at the hilum of the middle lobe and the bronchial stenosis in the lower lobe with a dilated bronchiectatic abscess just distal to it.

Figure 2. Case #8, G. R. Longi sections of right middle lobe opened to the hilus and right lower lobe. Note the almost parallel dilated and granulating bronchial channels in the middle lobe.

Figure 3. Case #9, M. M. Left lower lobe. Sectioned and opened at the hilus. The normal structure is replaced by markedly thickened and sacculated bronchial channels to the extreme periphery of the lobe.

Figure 4. Case #10, I. S. Right upper and middle lobes sectioned longitudinally. Note the marked hilar excavations in the upper lobe (below) with disseminated shotty abscesses and fibrosis in the periphery.



# Studies in Convulsant Therapy

## I. Technique and Clinical Phenomena

STANLEY ROCHELLE DEAN, M.D., Newtown, Conn.

Resident Physician, Fairfield State Hospital

### Introduction

The irritative or shock treatment of schizophrenia has imparted a tremendous impetus to the management of that disease. Whether or not it will prove justified remains to be seen. But in the meantime the psychiatric atmosphere is charged with interest and speculation. Everywhere one hears discussions about insulin shock and metrazol convulsions. Because the reported results of metrazol therapy compare favorably with those of hypoglycemic shock, and because the metrazol regimen is so much easier to administer, it is inevitable that it will become the subject of considerable experimentation. That is as it should be — for the ultimate success of any treatment in a disease as serious as schizophrenia must be measured in terms of thousands of cases and over a period of many years. Equally important in evaluating the collective results of any extensive research project is the adoption of a uniform technic — a scientific common denominator — among the various investigators.

These statements sum up the purpose of this paper — to provide a simple technique for inducing metrazol convulsions in human subjects, and to describe the phenomena incidental to it. My material has been compiled from the reports of Meduna<sup>1</sup>, Friedman<sup>2</sup>, and from my own experience based upon a series of 880 injections, which comprise 630 grand mal and 250 petit mal seizures. Inasmuch as this subject is distinct in itself, its psychiatric implications will form the basis of a separate report. For the present it may be pointed out that the matter is of tremendous significance not only to psychiatry, but to many other branches of medicine, providing, as it does, an experimental method of simulating epileptic paroxysms with relative impunity and at will.

### Procedure

In selecting a patient for the metrazol regimen, the following contra-indications should be kept

in mind, according to v. Meduna and Friedman.

1. Cardio-vascular disease.
2. Acute infections.
3. Menstruation.\*
4. History of head injury with unconsciousness.
5. Cachexia.
6. Abnormal constituents of blood and urine. (Active syphilis, diabetes, nephritis, anemia, jaundice, and other blood dyscrasias).

Each patient should, of course, undergo a thorough physical and laboratory examination. Urinalyses and blood studies should be checked at least once a week throughout the course of treatment. In addition the temperature, pulse, and respiration should be checked before each injection.

Metrazol (pentamethylentetrazol) is a white, crystalline, faintly bitter, and practically odorless powder, with a melting point of 58-59 degrees Centigrade. It is freely soluble in water, up to a 50% solution being possible. It belongs to the class of substances known as analeptics, which stimulate the vasomotor and respiratory systems when they are in a depressed state. For that purpose, when injected *slowly* in doses of 1 to 3 cc., it is of value as a restorative in circulatory collapse, shock, and respiratory distress. In larger doses, however, especially when *rapidly* injected into the vein, metrazol acts as a powerful convulsant, and it is with that property that the present report is concerned.

Although the drug may be purchased already dissolved, it is less expensive to mix one's own solutions, taking care that the proportion of metrazol and distilled water is 10% by weight, not by volume. It forms a clear, colorless, stable solution that may be sterilized in the autoclave at 15 to 20 pounds pressure for 15 to 20 minutes, and then stored at room temperature.

At first our patients, in accordance with Friedman's procedure, were subjected to thorough

\*A more recent tendency is to disregard normal menstruation as a contraindication.

dietary and chemical alkalization before and during the metrazol regimen. Theoretically this alkalosis was designed to increase neuromuscular irritability, lower the convulsive threshold, and thus reduce the convulsant dose of metrazol. It soon became evident to us, however, that such a course had two serious drawbacks. First, alkalosis itself exerts a strong alterative effect upon the organism; therefore, any resulting data would be more difficult to evaluate from a scientific point of view than if metrazol alone were used. Second, as numerous investigators have indicated, continued alkalosis may be toxic. Cope<sup>3</sup>, for example, in discussing alkali poisoning, lists such symptoms as anorexia, nausea, vomiting, irritability, and somnolence, with concomitant laboratory evidence of nitrogen retention, hypercalcemia and hypermagnesemia. A group of our patients was therefore treated without alkalization, being maintained upon an ordinary high-caloric house diet. Before long it became apparent that these patients, for practical purposes, responded as well to metrazol as those receiving alkali, and I have therefore given up its use entirely. Of the 30 patients who have thus far completed their course of treatment, not one has required more than 13 cc. of metrazol to produce the final convulsion, despite Friedman's warning that the maximum dose is much more rapidly attained in the non-alkalized individual. It is hoped that this modification, which is discussed more fully in another paper<sup>4</sup>, will contribute to the simplicity and scientific clarity of metrazol therapy.

One other modification of Friedman's procedure may be briefly mentioned at this time — the question of sedation. Irritability and even violence frequently appear in patients undergoing irritative therapy, and sedation at times becomes highly desirable and even necessary. As a result of experiments in our clinic, it has been found that a suitable drug for this purpose is hyoscine — in many cases it not only provides sedation, but actually *lowers the individual's irritative threshold so that he will react to a smaller convulsant dose of metrazol than before*. One therefore need not hesitate to give a disturbed patient a hypodermic of hyoscine, gr. 1/150 or 1/100 at any time in the course of his treatment, for the resultant sedation will add not a little to

the facility and ease of conducting the metrazol regimen. The experimental data governing these modifications will be presented in greater detail in forthcoming reports of our investigations governing the influence of various drugs and diets upon metrazol convulsions. A similar observation regarding hyoscine has been independently made by Kennedy<sup>5</sup>.

The patients having been selected, several may be treated at a time, since each requires, as a rule, not more than 5 or 10 minutes of the physician's time, unless the latter plans to make more prolonged observations.\* The patient should be lying in bed unhampered by clothing or bed-clothes. The metrazol tray should contain the following items:

1. A rubber-stoppered bottle containing a sterile 10% solution of metrazol, *by weight*.
2. An assortment of 10 cc. and 20 cc. glass syringes.
3. Hollow needles — preferably 19-gauge and 2 inches long.
4. A rubber tourniquet.
5. Mouth gags — may be made from "sanitary pads" rolled lengthwise and secured with rubber-bands.
6. Sterile gauze and 70% alcohol for sterilizing the skin.
7. Ampoules containing stimulant and sedative drugs. (I may say parenthetically that I have never yet had occasion to use these.)
8. A stop watch for recording the duration of the various stages.

The injection is given intravenously *as rapidly as possible* — for, as pointed out by Kruger<sup>6</sup>, the same dose given rapidly may produce a convulsion that will not occur when the injection is given slowly. Injections may be repeated every other day until the patient has had a total of 20 to 25 grand mal paroxysms, keeping in mind that the criterion of a grand mal, for our purpose, is complete loss of consciousness.

It is usually best to start with 3 cc. since that dose is frequently sufficient to produce the initial convulsion. If not, then the amount is increased by 1 cc. each time until the convulsant dose is established. At first I kept this convulsant dose constant until the patient's tolerance increased to a point where a grand mal seizure no longer occurred, in which case I would increase the

\*The patient should, however, be watched by a nurse or attendant for at least 15 minutes, for in very rare cases a convulsion has been known to occur several minutes after the injection of metrazol. This, however, is by far the exception.



amount 1 cc. at a time until the convulsant level was again reached, and so on. As a result the series of grand mal attacks would be interrupted at annoying intervals by petit mal responses. It is therefore my practice now to step up the dose arbitrarily by 0.5 cc. or 1 cc. every second or third injection in order to keep in advance of the patient's tolerance, so to speak. In that manner it is relatively easy to maintain a long series of un-interrupted major paroxysms with a consequent saving in time and the amount of metrazol used. The maximum dose of metrazol that may be safely given at one time is said to be 15 cc. of the 10% solution. In my experience there has been little relation between the convulsant dose of metrazol and the body weight or duration of the psychosis.

### Description of the Seizure

Following the rapid injection of metrazol, events occur with dramatic suddenness — usually within a matter of seconds. In typical cases several phases may be observed. For the sake of clarity each of these will be described separately, although it should be understood that there is no constant uniformity, and that the entire episode is a more or less continuous process, each phase merging with the succeeding one through a series of subtle gradations. The time relations mentioned here are *average* figures only. (See also the accompanying chart.)

1. The *aura* appears within 5 or 10 seconds after the injection. Objectively it is manifested by one or more of these signs: a slight cough, deep sigh, startled glance, lip-smacking, rapid blinking of the eyes, uneasy jerking of the head, or insensate screaming. The duration of the aura is 5 or 10 seconds, and it is followed by

2. The *precipitating phase*. This is a descriptive term coined in this hospital, since no reference to a similar phase is mentioned in the usual descriptions of epilepsy. The patient suddenly raises his head or sits bolt upright in bed, an expression of mingled surprise and terror upon his face. His arms jerk spasmodically in a species of rapid, irregular thrusts and parries, as though he were warding off a shower of invisible blows. He has not yet fully lost consciousness and is just on the verge of the tonic spasm. In a recent paper by Finkleman and his co-workers<sup>7</sup> this precipitating phase is apparently encompassed in the first "clonic" stage of what they describe as the "clonic-tonic-clonic" se-

quence of the actual paroxysm. I believe, however, that the precipitating phase is distinct from the true clonic convulsion for the following reasons: (a) It is frequently the terminal component of the petit mal reaction; (b) it is not accompanied by loss of consciousness; (c) it lacks the rhythm of the later clonic phase.

I consider the precipitating stage extremely important for it is frequently the point of demarcation between a petit mal and a grand mal seizure — the last barrier between consciousness and coma. So hyper-irritable is the neuromuscular apparatus at this instant that a few slight taps on the abdomen may induce spasms that are just sufficient to bridge the convulsive threshold and convert a possible petit mal into a grand mal paroxysm. This phase lasts about five seconds and then immediately passes into

3. The *tonic* spasm. I cannot depict this better than by quoting from the classical description of epilepsy by Gowers<sup>8</sup>, written in 1881. "At the onset of the severe fit the spasm is tonic in character, rigid, violent muscular contractions fixing the limbs . . . There is usually deviation of the eyes and rotation of the head towards one side, and this rotation may involve the whole body. The features are distorted; the face becomes suffused and then livid as the chest is fixed and respiratory movements are arrested. The eyes are open or closed; the conjunctiva is insensitive; the pupils dilate widely as cyanosis comes on."

To that description I would like to add some personal observations. During the precipitating phase or at the beginning of the tonic stage, an intense erythematous flush may suffuse the skin of the upper part of the body and, in addition, this area frequently develops the appearance of "goose-flesh." It lasts but a few moments. Sometimes evidences of stimulation of smooth muscle are seen in the erection of the nipples and partial erection of the penis. Occasionally the fit is preceded by the so-called epileptic cry — an indescribable, wild, harsh, screaming sound produced by the forceful expulsion of respired air through the closed glottis. *The paroxysm is invariably initiated by a tonic yawn* — an occurrence of fortunate significance — for at that moment one may quickly insert a mouth-gag in order to prevent the teeth from clamping down upon the tongue. As a result of this procedure

there has not been a single bitten tongue in our entire series.

Apnea begins with the onset of the spasm and lasts almost until the end of the clonic phase — about 40 to 50 seconds in all — with a progressive increase in cyanosis during that period. The most common attitude of the limbs during this paroxysm is that of a tetany-like carpo-pedal spasm. Gradually, after about 20 seconds, this is replaced by

4. The *clonic* phase. Again quoting from Gowers, "Presently when the cyanosis has become intense, the fixed tetanic contractions of the muscles can be felt to be vibratory, and the vibrations increase to slight visible remissions. As these remissions become deeper, the muscular contractions become more shock-like in character, and the stage of clonic spasm is reached in which the limbs, head, face, jaw, and trunk are jerked with violence." Gradually the spasms decrease, but "... in becoming less frequent the muscular contractions do not become less strong, and the last jerk is often as violent as those which have preceded it."

To this picture I have only to add the observation that occasionally incontinence of semen, urine, and feces occurs towards the end of the convulsion. The clonic phase lasts about 25 seconds and subsides into

5. The *rest* phase. With the exception of a few spasmodic gasps near the end of the paroxysm, the patient has until now been apneic. The cyanosis has advanced to a degree of lividity that is rather alarming to behold. For a brief, anxious moment all the vital functions appear to be suspended — but just when it seems that the patient is on the point of death, he sucks in a great gulp of air and noisily expels it, thence continuing these deep stertorous respirations until his skin resumes a normal color again. His body now lies limp and relaxed. At this stage the sputum develops its characteristic frothy appearance, but one may have to remove the mouth-gag in order to observe it. One should at any event make traction upon the gag in order to make sure that it is tightly held by the teeth. If loose, it may indicate a dislocated jaw, in which case it should be immediately reduced while the patient is still unconscious.

Observations made during this stage show little or no rise in temperature. The blood pressure remains stationary or becomes slightly ele-

vated. The pulse may show remarkably little change, although tachycardias and transient arrhythmias are often encountered. In many cases the superficial reflexes cannot be elicited, whereas the deep tendon reflexes are increased and the Babinski sign is positive.

The rest phase varies considerably in duration and may be succeeded by

6. The *automatic* phase, during which the patient seems on the verge of consciousness but is still very dazed and flings himself about in a confused, groping, aimless manner. This phase is not convulsive in nature. As a rule it is followed by

7. *Sleep*. This phase resembles natural sleep from which, after an interval of a few minutes to an hour, the patient awakens ready to resume his usual activities, with perhaps a slight residual clouding of consciousness that may last for several hours, and with a complete amnesia for the attack. As a rule, he describes himself as feeling fine; but malaise, nausea, and vomiting may be observed in occasional cases.

### The Petit Mal Reaction

In evaluating results, I regard any of the above phenomena that are not followed by unconsciousness to constitute a petit mal reaction. It may be nothing more than an erythematous flush or it may go on to a few abortive tetanic spasms, although, as a rule, it ends with the precipitating phase. A paradox worth mentioning is this. The more severe the convulsion and the more profound the coma, the less the patient seems to mind it. It is usually after his first petit mal that he begins to exhibit terror and resistiveness. The reason is evident. During a petit mal attack the patient is conscious and remembers vividly the disagreeable, sickening sensations that he experiences. These sensations are described in various ways. One states that he smells ether; another sees flashes of light or hears buzzing noises; a third complains of giddiness, trembling, nervousness, and convulsive epigastric sensations. Some of the patients have been induced to describe their experiences in writing, of which I give you a few interesting examples. In evaluating them please keep in mind their psychotic origin:

Patient E. D. "From the moment the needle is jabbed into me I immediately smell a strange smell that nauseates my whole body into numbness. I am incapable of making a motion or a sound. I feel completely as if I



were in the next world, on a bed like a dog or a flower. I completely forget everything about myself or about the room I am in. I also experience a struggle to explain how I feel, a terrific striving to see some loved soul. I think God intends to take me in one of these seizures."

Patient P. D. "Last Saturday I received an injection inadequate to put me to sleep. Turning my head in a partial doze, a needle hanging from its point in my arm was the next thing I saw. With a shock it struck me that my body had been effeminized during sleep — and by a needle. Since then I have been quite frightened of the ether-needle — and stomach upset by the largely liquid diet we ether patients have been fed."

Patient S. R. "When I get a treatment I see stars and after a while things get yellowish and then black. After coming out of it I'm in a dense fog for some time. I feel very nervous, touchy, and irritable. My back pains me and I have pain in my head and jaws."

Patient T. G. "After taking one of those knock-out treatments my muscles are sore, my lungs feel loose, and the inside of my body seems to pull away from the frame."

### Complications

However appalling this treatment may seem, Meduna expresses the belief that it has no inherent danger; it must be remembered that the same phenomena occur regularly in epileptics over a period of many years. Moreover, most patients gain weight during treatment. Up to the present time I have heard of only one death and that patient was said to have shown aortic disease at autopsy. Meduna states that he has induced over 1,000 paroxysms without any

serious complications. In our series there has been one dislocated jaw and that was reduced without difficulty. Two patients developed marked swelling over the right masseter and temporalis muscles. One patient developed transient ecchymoses of the arms and disabling stiffness of the shoulders, probably due to the diapedesis of blood into the shoulder joints; these signs cleared up within a few weeks following the cessation of treatment and the exhibition of large doses of vitamin C. Regarding the question of status epilepticus or the development of an epileptic habit, I have never known that to happen. One hears rumors of other complications and rare fatalities, but thus far no authentic reports have appeared in the literature.

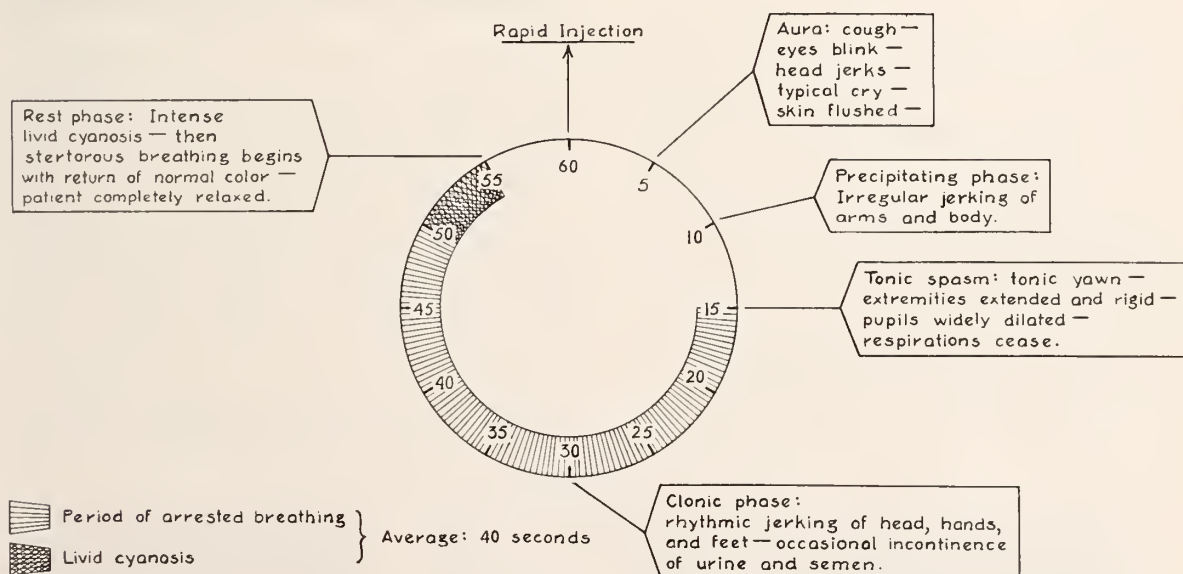
From the above it must not be inferred, however, that metrazol convulsions are to be regarded lightly. Until more is known of the pharmacological action of the drug and its possible effects upon nerve tissue, the utmost vigilance and caution must be maintained.

### Summary

This paper is nothing more than a compilation of facts dealing with the technique and related phenomena of induced metrazol convulsions in human subjects, reduced to a simple, readily available form.

### CONVULSIVE TREATMENT OF SCHIZOPHRENIA WITH METRAZOL INJECTIONS

A typical episode recorded in seconds



The characteristic result of a convulsant dose of metrazol is (1) an immediate, (2) single, (3) self-limited convulsion (4) that seems to be almost identical with the grand mal episode of true epilepsy.

Because of the predictable constancy of this reaction, and because of the comparative ease and safety of administration, metrazol seems to be an ideal vehicle for both therapeutic and experimental purposes. Regardless of its fate in the treatment of schizophrenia, this drug offers many intriguing possibilities or enriching our knowledge of the convulsive states.

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#### HOSPITAL SERVICE PLANS APPROVED

On April 18 the American Hospital Association, representing 7,000 hospitals in the United States and Canada, officially approved the non-profit hospital service plans as now operating in forty cities. The forty approved plans, scattered through nineteen states and the District of Columbia, have a combined membership of more than 1,600,000. More than half the members are residents of New York State and 41.3 per cent are members of the Associated Hospital Service of New York. Subscribers to the three-cents-a-day hospital plan of the A. H. S. of New York

are to receive increased benefits. Under the new policy, thirty days of semi-private hospital care will be provided instead of twenty-one, and the subscribers will receive a 33 1/3 per cent discount off semi-private hospital charges after thirty days instead of the former 25 per cent discount after twenty-one days.—*N. Y. State J. Med.*, May 15, 1938.



#### "THE DOCTOR" IN PERMANENT HOME Sculpticolor of Fildes' Masterpiece goes to the Rosenwald Museum

The \$150,000. reproduction of the Sir Luke Fildes masterpiece "The Doctor" first shown by the Petrolagar Laboratories at Chicago's Century of Progress Exposition in 1933, was recently presented by its owners to the new Rosenwald Museum of Science and Industry in that city.



Following the two World's Fairs, "The Doctor" Exhibit went on a tour of 50,000 miles and was viewed by over five million people in 18 principal cities throughout the country.

Designed to remind the public of the importance of the family physician, it required the full time of the late Chicago sculptor, John Paulding and the noted artist Rudolph Ingerle and a large corps of assistants, and took nearly a year to complete.

In its new location in the Rosenwald Museum it will be seen by millions of visitors annually.

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# Cystic Tumor of the Tail of the Pancreas:

## Report of a Case

SYDNEY V. KIBBY, M.D., Los Angeles, Calif.

This case is reported because of the rarity of the condition, as well as the interesting character of the radiological and pathological findings.

The patient, a housewife, aged 58, was admitted to the Glendale (Calif.) Sanatorium, service of Dr. John W. Hopkins, January 2, 1938, complaining of (1) obstinate constipation, (2) mass in the upper abdomen, (3) pain across the epigastrium, back and spine.

The following history was recorded by the intern:— (1) Constipation was of thirty years duration but worse for the past six months. (2) The mass noticed for the past five or six months appears to have grown more rapidly during the past two or three weeks. A bottle of citrate of magnesia taken in the morning brings a liquid stool in the late afternoon with much griping. There has been no visible blood in the stool, and no nausea, but the patient has been dizzy, exhausted, and weak after defecation. (3) Pain has been present all the time, but worse at night, so that she has been often wakened by it about 11 or 12 o'clock. Occasionally the pain has been colicky, but usually a constant dull ache, or a rumbling gas pain. At times she has had slight nausea, but no vomiting. Food has seemed to relieve the pain at first, but four or five hours after eating the pain has become worse. Soda occasionally has helped. Laxatives have been needed every day.

The patient was born in Massachusetts, lived in Iowa 14 years, later in Missouri, Texas, New Jersey, and the last three years in California. She had diphtheria and scarlet fever in childhood. In 1918 she had influenza, pneumonia and pleurisy. She had a nervous breakdown at 20.

At 30 she had a repair of the cervix and perineum, and a tonsillectomy in 1926-7. She had broken ribs and finger at 55. She denies the use of alcohol or tobacco, except a little port wine. She has seldom used tea, but takes three cups of coffee daily. Her best weight has been 140 lbs., usual weight 132-133 lbs. several years ago. Her present weight is 115½ lbs. Her height is 63 inches.

The patient complains of no pain referable to the cardio-respiratory system, no shortness of breath and no edema. She is not subject to colds, but has an occasional hacking cough, tires easily, and occasionally has vertigo and palpitation.

She has no appetite. Breakfast consists of a cup of black coffee. At noon she takes a small glass of wine. At night she takes a fair dinner. She uses salt moderately, is fond of sugar, but candies hurt her. She eats much bread, vegetables once a day, potatoes and meat seldom. She has not had sour stomach, but has had flatulence and foul breath.

She has nocturia once a night sometimes, frequency and urgency often, but has had no pain referred to the

kidneys or bladder. She sleeps poorly on account of the abdominal pain, has had headaches behind the eyes, all her life. She wears glasses for reading. Memory and hearing have been all right. She has been much depressed. She has had no rheumatism. She has had what were probably asthmatic attacks, but only occasionally.

Catamenia began at 13, has been irregular, with much pain, and abundance of flow. She has been pregnant five times, but the children died at birth or soon after. The menopause occurred from 43 to 50.

The patient's father died of paralysis agitans and arthritis at 67. Her mother died of mitral regurgitation and a fractured femur at 75.

Physical examination shows an elderly female with a white dry skin, dry scalp, hair thin. She looks ill. Conjunctivae are pale; pupils unequal, left larger; mucous membranes pale; teeth all false; tongue and pharynx negative; tonsils removed; neck, breasts, and axillae negative; chest well developed, expansion equal and good; lungs negative; heart, dullness and apex beat negative, slight systolic murmur at the apex; radial arteries moderately sclerotic; blood pressure 145/85; pulse 84; temperature 98.8; abdomen thin; muscles soft.

On the left side in the upper quadrant of the abdomen could be palpated a large firm mass, not tender or slightly so, apparently of two lobes closely united, freely movable. The mass could be pushed upward under the left costal margin. Other abdominal organs appeared normal to palpation. There were no enlarged glands and no herniae. The extremities were white and cold with small bunions. Pelvic examination was negative. The uterus and tubes had no connection with the mass. The perineum and cervix were well repaired. Proctoscopic examination showed pale mucous membranes. The rectum ballooned freely. There was considerable mucus.

There was no speech defect, no tremors, no incoordination. Romberg and gait were negative. Pupillary, patella, Achilles, and abdominal reflexes were all present and normal. There was no clonus or Babinski. The spine was negative. There was no peripheral nerve tenderness.

The impression on physical examination was of a tumor of the spleen or left kidney.

Laboratory tests showed the urine clear; sp.gr. 1012; no albumen or sugar. Microscopic examination showed a few squamous cells, pus cells, and bacteria. The blood showed from 3,480,000 to 4,210,000 red cells, 2,850 to 4,100 leucocytes; and the differential count showed 49-61% polys. 45-35% small lymphocytes, 3% large lymphocytes, and 3-0% eosinophiles.

Radiological examination consisted of kidney examination with skiodan and a barium colon enema. The

kidneys were shown to be of normal shape, size, and position, with the kidney pelvis, major and minor calices appearing normal. The colon was much distended by the barium mixture, and was displaced downward and to the left by the tumor which was visible in the radiographs. The radiologist was of the opinion that the tumor was a cyst on the mesentery or possibly pancreas.

Operation was performed by Dr. A. E. Coyne at the Glendale Sanitarium by a left rectus incision from the margin of the ribs to a point 2 inches below the umbilicus. The transverse and descending colon was flattened over a large, somewhat irregular, retroperitoneal tumor, cystic in nature. The spleen and left kidney were normal in size and position. The liver was normal in appearance and not enlarged. The mesentery of the descending colon was incised and the cyst delivered through the opening. The cyst was found closely adherent to the posterior surface of the tail of the pancreas and not to any other tissue. The pancreas was dissected free of the cyst without breaking into pancreatic tissue. The blood supply of the cyst came directly from the pancreas. The vessel was ligated and cut. The raw area was closed and the mesocolon sutured. The wound was closed without drainage. The patient has made an uneventful recovery.

The following is from the pathological report of Dr. O. B. Pratt, White Memorial Hospital, Los Angeles:

"Cyst removed from the tail of the pancreas measures 14 by 10 by 8 cm. It has a fairly smooth surface with a few grooves which suggest that it may be multilocular. There are a few blood vessels visible on the surface. The cyst is quite firm, being filled with a viscid fluid. Suspended in this fluid are many small shining plate-like crystals which give a silvery appearance to the fluid. Microscopic examination reveals typical cholesterol crystals. The cyst wall varies from 1 to 3 mm. in thickness. Several broad trabeculae traverse the inner surface, partly dividing the cyst cavity, but there is only one space in the cyst. The cyst wall is white and very tough. The inner lining is quite smooth. Microscopically the cyst wall is composed of relatively acellular fibrous tissue. No glandular elements are found in the wall. There is little infiltration with wandering cells. There is no lining epithelium. The cyst is typical of these that develop following hemorrhage, organization, and absorption of blood clot."

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### MEDICAL HISTORY

Two State Medical Societies are showing interest in medical history in their respective states. As noted elsewhere in this issue of the Journal, the Medical Society of New Jersey is considering the establishment of a Committee on Medical History with a sub-committee in each county society for the purpose of obtaining and recording a list of members known to be descendants of one or more presidents of that Society. The

South Carolina Medical Association has appointed a Medical Historical Commission consisting of five members whose function shall be the "gathering, preserving, and publishing when possible material which bears upon the history of the Association and of medicine generally in South Carolina". Taking her neighbor Virginia as an example, the South Carolina Association hopes to produce at some future date its first history of medicine in that state.



# Lymphocytic Chorio- Meningitis;

## Report of Three Cases\*†

ARTHUR H. JACKSON

138 Grove Street, Waterbury, Conn.

In 1925 Wallgren<sup>1</sup> of Sweden described a disease characterized by: (1) sudden onset with meningeal signs and symptoms; (2) a sterile spinal fluid with high cell count; (3) a short clinical course with no secondary complications; (4) unknown etiology and (5) lack of epidemiological features. For this disease he proposed the name "acute aseptic meningitis". Since the time of this publication cases have been described as occurring in Europe, North America, Australia, New Zealand and the Malay Peninsula. Various names have been suggested by different authors, such as "acute benign idiopathic serous meningitis", "benign aspectic purulent meningitis" and "epidemic meningitis serosa". More recently the name that has come into favor is "Lymphocytic Chorio-Meningitis."

There has been much discussion as to whether this is a disease sui generis, whether it is an abortive form of poliomyelitis or whether it is related to epidemic encephalitis. At first it was perhaps most often considered to be a form of poliomyelitis. Against this opinion are the facts that: (1) none of the reported cases have developed paralysis in spite of their high spinal fluid cell count; (2) they tend to have a spinal fluid cell count much higher than occurs in the case of poliomyelitis; (3) there is a preponderance of lymphocytes in the spinal fluid from the very onset and (4) the prodromal symptoms are more apt to be those of an upper respiratory infection than of a gastro-intestinal disturbance. In favor of a relationship with encephalitis is the symptomatology at onset and the development of the post-encephalitic Parkinson syndrome in a few cases. Against this association is the rarity of cranial nerve involvement and somnolence and a spinal fluid cellular response far greater than is said to occur in the case of encephalitis.

Armstrong<sup>2</sup>, in the course of his investigations in the St. Louis epidemic of encephalitis in 1933,

encountered a virus with which he was able to produce a lymphocytic chorio-meningitis in monkeys and mice. Rivers and Scott<sup>3</sup> later isolated a virus which they believe is the etiological agent in this condition and, because of this, they believe it is a distinct disease entity. Viets and Warren<sup>4</sup> in January 1937 published the only pathological report of a patient dying from this disease and came to the conclusion that it is both an encephalitis and meningitis.

The usual symptoms are: (1) those of an upper respiratory tract infection for several days; (2) headache; (3) general malaise; (4) dizziness; (5) vomiting and (6) drowsiness. The patients usually have a high temperature at onset which subsides by lysis and reaches normal in from a few days to a week. The pulse and respirations rise and fall with the temperature. The only physical signs which are almost always present are nuchal rigidity and a positive Kernig sign. The optic disks are not uncommonly blurred but involvement of other cranial nerves is most unusual. Diplopia has been reported in one case and retinal hemorrhages have been noticed a few times. Transient facial paralysis has been reported but evidence of involvement of the pyramidal tracts other than the presence of increased deep reflexes and occasional Babinski signs apparently does not occur. Tenderness of the muscles has been encountered fairly commonly. Unconsciousness occurs rarely.

The most characteristic feature of lymphocytic chorio-meningitis is the cellular reaction in spinal fluid. The spinal fluid pressure is usually high while the fluid itself is clear and without any tendency toward pellicle formation. The cell count varies from a very slight elevation to as much as 4000 per cu. mm. with 95-100% lymphocytes from the very onset. The protein, sugar and chloride content is within normal limits. The white blood corpuscles in the blood

\*From the Medical Service of the Waterbury Hospital.

†Read before the Litchfield County Medical Association, April 26th, 1938.

range from 7,000 to 18,000 with a predominance of polymorphs.

The following three cases which have come to our attention on the medical service of the Waterbury Hospital during the past eighteen months are of interest because they show some unusual features as well as the more typical ones.

CASE 1: J. G., a 15 year old white girl, was admitted on December 29th, 1936, with a complaint of severe pain in the back of the neck and mastoid regions and general malaise. Her temperature on admission was 103 and she had some nausea. Two weeks before admission she had suffered an attack of what was considered gripe. This condition had seemed to run a normal course and she had felt very well for four days prior to admission. The patient was very apprehensive and the pain in the back of the neck was evidently very severe. An urticarial rash on the arms was noted at the time of admission. There was

some tenderness over the right eye and general hyperaesthesia about the neck and over the mastoid processes. There was moderate stiffness of the neck, generalized, but slight, abdominal tenderness and slight tenderness of all the joints. There was a bilateral Kernig sign. The neurological examination was negative except for moderate choking of both disks. On January 6th diplopia was noted and on the same date small retinal hemorrhages were found. By January 11th the choking of the disks had begun to recede and, by the time of discharge, all the edema had cleared up. Her urine was normal at all times. The following is the record of her spinal fluid findings, blood counts and vital signs.

The patient was discharged on January 16th, 1937, in good condition. Six weeks later a specimen of blood was sent to the Rockefeller Institute for examination but no anti-bodies to the virus isolated by Rivers were found. She has been seen at intervals during the past year and has remained well except for some headache.

CSF:	12-30	Pressure 400mm of water.	Cells 14 c	96% lymphos
	12-31	Pressure 350mm of water.	Cells 20 c	90% lymphos
	1-1	Pressure 450mm of water.		
	1-2	Pressure 350mm of water.	Cells 6 c	100% lymphos
	1-3	Pressure 350mm of water.	Cells 4 c	100% lymphos
	1-4	Pressure Not recorded	Cells 2 c	100% lymphos
WBC:	12-30	10,000 c	79% polys and	19% lymphos and 2% eos.
	1-1	5,200 c	46% polys and	54% lymphos and
	1-2	5,200 c	54% polys and	38% lymphos and 8% eos.
	1-3	5,000 c	72% polys and	24% lymphos and 4% eos.
	1-5	4,200 c	55% polys and	45% lymphos
	1-8	6,500 c	55% polys and	41% lymphos and 4% eos.
	1-16	9,250 c	62% polys and	38% lymphos
Temp. Peak:	12-29	104.8	P 120	R 26
	12-30	103.4	120	26
	12-31	102.4	120	22
	1-1	103.6	120	24
	1-2	103	120	22
	1-3	102	110	22
	1-4	99.8	110	
	1-5	99	110	

CASE 2: M. H., a 22 year old negro male, was admitted on October 26th, 1937, in a semi-conscious condition with a temperature of 105.6. He had been well until two days before admission when he began to complain of a sore throat. At the time of admission a complete physical examination was negative except for his semi-conscious condition and a very red throat. On October 27th definite nuchal rigidity developed and a bilateral Kernig sign was noted. He was still in a stuporous condition and continuous spinal fluid drainage was instituted with prompt return of consciousness. On October 29th the patient was slightly disoriented and nystagmus was noted at this time.

The deep reflexes of the legs and the abdominal reflexes were absent. At this time a diagnosis of lymphocytic chorio-meningitis was made and further treatment was confined to repeated lumbar taps. The patient made an uneventful recovery and was discharged on November 11th in excellent condition. He was still in good condition when last seen some two months ago. The following is the record of his spinal fluid findings, blood counts and vital signs. The spinal fluid was at all times perfectly clear and contained a normal amount of sugar with slightly increased globulin.

CSF:	10-27	Pressure 200mm of water.	Cells 155 c	68% lymphocytes
	10-27	Pressure Not recorded.	Cells 132 c	80% lymphocytes
	10-29	Pressure 110mm of water.	Cells 134 c	88% lymphocytes
	11-1	Pressure 50mm of water.	Cells 64 c	92% lymphocytes
	11-4	Pressure 50mm of water.	Cells 28 c	84% lymphocytes
	11-8	Pressure 100mm of water.	Cells 4 c	100% lymphocytes



WBC:	10-26	11,850 c	88% polys and 12% lymphocytes
	10-27	11,700 c	68% polys and 32% lymphocytes
Temp. Peak:	10-26	105.4	P 100 R 25
	10-27	104.8	110 38
	10-28	104	100 40
	10-29	100.4	90 20
	10-30	100.2	96 22
	10-31	99.4	82 20
	11-1	99	72 20

CASE 3: R. B., a 14 year old white boy, was admitted on November 26th, 1937, with convulsions. He had been perfectly well except for a sore throat until the afternoon of the day of admission when he had three convulsions in rapid succession. The patient was in coma on admission. His temperature rose rapidly from 100 to 105 and his pulse rose from 90 to 155. External strabismus of the left eye was noticed but he did not have a stiff neck or any other signs of involvement of the central nervous system. A lumbar puncture was done but the pressure was not recorded. The spinal fluid was clear with normal sugar, globulin and chlorides. The cell count was 4. On November 27th, there was definite nuchal rigidity. On this

day his abdominals and cremasterics were absent and all the deep reflexes were hard to elicit. He was conscious but semi-stuporous. On November 28th, all the reflexes were present and it was noted that the left pupil was larger than the right. On November 29th, the pupils were equal but the patient was having some visual hallucinations of animals. The patient had had headaches since regaining consciousness and these persisted until his discharge on December 14th. When last seen some two months ago he was in excellent condition. The following is the record of his spinal fluid findings, blood counts and vital signs.

CSF:	11-26	Pressure not recorded.	Cells	4
	11-27	Pressure not recorded.	Cells	13 c mostly lymphocytes
	11-30	Pressure not recorded.	Cells	10 c 90% lymphocytes
	12-4	Pressure not recorded.	Cells	14 c 99% lymphocytes
	12-9	Pressure not recorded.	Cells	106 c 90% lymphocytes
	12-14	Pressure not recorded.	Cells	14 c 100% lymphocytes
WBC:	11-26	31,000 matured polys, 43%, juveniles 5%, stabs 49% s.l. 3%		
	11-27	28,700 matured polys, 92%, s.l. 8%		
	11-30	11,600 matured polys, 70%, lymphocytes 35%, eos. 2%		
Temp Peak:	11-26	105	P 156	R 46
	11-27	102.4	135	35
	11-28	99.8	112	30
	11-29	99.6	110	30
	11-30	100.6	112	25
	12-1	98.6	100	22

Summary: Three cases are presented, all of which had the typical spinal fluid findings of lymphocytic chorio-meningitis and all of which had, as their first evidence of illness, signs of what seemed to be an upper respiratory infection. Case 1 had the usual symptoms of malaise and stiff neck. The diplopia, choked disks and retinal hemorrhages were unusual findings. The unusual findings in case 2 were the semi-conscious condition and the nystagmus, which was present for a short time. A search of the literature has failed to reveal any other case the onset of which was marked by convulsions, as occurred in Case 3.

Conclusions: Lymphocytic chorio-meningitis is a disease which occurs predominately in young people. It is probably more common than ordinarily realized. The onset is severe and may be

dramatic, giving rise to a very grave prognosis until it is diagnosed. Its course, after the initial symptoms have developed, is essentially benign and it clears up in a few days without leaving any serious residual symptoms.

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## Some Problems in Relation to Bright's Disease\*

WARFIELD T. LONGCOPE, M.D., Baltimore, Md.

It is of the utmost importance to be able to recognize the early stages of acute hemorrhagic nephritis. There is often a preceding acute infection, usually of the upper respiratory tract but occasionally of the skin, from which B-hemolytic streptococcus may often be isolated. The onset of nephritis is six to twenty-one days after the initial infection, seven days on the average. Edema, hypertension, hematuria, albuminuria and casts are the usual findings but vary tremendously in degree. In the acute stage, myocardial failure frequently decreases the efficiency of the kidney still further. Cardiac dilatation and increased venous pressure warn of this state. Great benefit often follows digitalis therapy.

Convulsive seizures during the acute stage of hemorrhagic nephritis is usually attributed to edema of the brain. Fifty per cent sucrose intravenously or intramuscular magnesium sulphate is used to control the convulsions.

Half of all the patients with the acute disease go on to complete recovery. If this does not take place within two years, the patient must be considered to have chronic nephritis. Of every hundred acute active cases, eleven died in the acute stage, a few of lobar pneumonia.

Treatment in the acute phase must emphasize the treatment of the initial infection. To prevent exacerbations, tonsillectomy should be performed during the quiescent stage if possible. Rest, a bland alkaline diet and digitalis, if necessary, are the other main points of treatment. No diuretics should be administered. Prontylin has been used in a few cases without conclusive results as yet. It is necessary to give only small doses since renal excretion is impaired in these patients. However, in these doses no injurious effect on the kidney has been noted.

There is a group of cases with no history of preceding infection, but the involvement of the kidney is insidious in onset and usually slowly but steadily progressive with, perhaps, occa-

sional quiescent periods. Prognosis in this group is very bad and no treatment seems to alter the ultimate outcome.



### CARCINOMA OF THE CERVIX IN BENGAL, INDIA

Mitra in Calcutta Medical Journal for March, 1938, reports the frequency of carcinoma of the cervix in Bengal over the ten year period 1926-1936 as about one in ten of all admissions to one hospital. The total number of cervical carcinoma cases was 762 and of these scarcely ten per cent fell in the early group. Two methods of treating this disease are in vogue in Bengal, surgery which includes both the Wertheim and the Schauta operations, and radium. No mention is made of deep X-ray therapy. This author is proud to report a total of forty cases which have survived after the conventional five-year period. These represent a combination of the two methods of treatment. Mitra pleads for more educational preventive work by lectures and leaflets as exists in America and Europe. "Even a little cancerphobia is not bad; it will not kill a person."



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September 20, 21, & 22.

\*Abstract of paper presented before 13th Clinical Congress, Connecticut State Medical Society, New Haven, September 22-23, 1937.



## A Standard Procedure for the Performance and Interpretation of the Tuberculin Test

PAUL S. PHELPS, M.D.\*

Tuberculin testing is being done on a fairly large scale in many communities in the state of Connecticut. It would appear that in many instances, various methods of tuberculin testing are being employed, some using a single intradermal dose, others two. A few are using the Patch test. Old Tuberculin (O.T.) is being used for the most part, Purified Protein Derivative (P.P.D.) occasionally. Interpretation of the test varies. Results obtained in one community are not comparable with those of another. Moreover, results of tuberculin testing in one high school are not comparable with results obtained in other high schools in the same city.

Now that a non-sensitizing standard tuberculin, P.P.D., is available, and there is a standard procedure for the performance and interpretation of the tuberculin test, it should be used so that a true incidence of infection may be determined, and the results will be comparable not only in the various communities in the state, but on a nation-wide scale.

As pointed out before, it is at present impossible to make comparative evaluations of the results of various observers on the incidence of tuberculous infection, because of differences in mode of application, the potency and the amount of tuberculin used and interpretation of results.

The Pirquet method has been shown to be less delicate than the intracutaneous test. Old Tuberculin prepared in different laboratories may vary in potency within wide limits. All tuberculin tends to lose potency on standing. The Purified Protein Derivative is free from non-specific proteins and salts and is never diluted until the time of use.

The following quoted descriptions are taken directly from the original articles describing the Purified Protein Derivative of Tuberculin (Seibert, Aronson, Reichel, Clark and Long<sup>1</sup>).

"For convenience of testing, the Purified Protein Derivative is put up in tablet form in two types of container, used respectively in small

scale and large scale testing. The small-sized vials contain 0.0002 mgm. of P.P.D. for the first dose and 0.05 mgm. for the second dose. The stoppers of the bottles containing the diluent and the tablet of Purified Protein Derivatives are carefully cleaned with ethyl alcohol, allowed to dry, and 1.0 c.c. of the diluent which consists of a buffered salt solution of pH 7.4, is added to the tablet through the rubber stopper by means of a sterile syringe and needle. The bottle should be shaken for two or three minutes until the tablet is dissolved.

"For the first dose, the skin over the forearm is washed with ethyl alcohol or acetone and allowed to dry. By means of a sterile 1.0 c.c. tuberculin type syringe and a 26 gauge needle of half-inch length, 0.1 c.c. of diluted Protein Derivative containing 0.00002 mgm., is injected into the skin over the flexor surface of the forearm, at a point about 4-5 cm. below the bend of the elbow. The bevel of the needle should be held uppermost and the needle inserted into the skin somewhat beyond the bevel. The injection should be made slowly, and, when properly made, it will be followed immediately by a sharply delimited hemispherical swelling, often wheal-like, raised from 1 to 2 m.m. above the surrounding skin.

"The site of the injection is examined 48 hours later, and, if no reaction is noted, 0.1 c.c. of a similarly-made solution of the second-strength test tablet, containing 0.005 mgm. of Protein Derivative, is injected into the skin of the opposite arm. If after 48 hours, no reaction is noted at the site of injection, the person is considered negative to tuberculin."

The first dose of 0.00002 mgm. of P.P.D. is equivalent to 0.002 - 0.004 mgm. of Koch's Old Tuberculin, which, as noted, is a variable product. It is intentionally made smaller than the commonly used 0.01 mgm. of Old Tuberculin to obviate severe reactions in highly sensitive people. The second dose of 0.005 mgm. is ap-

\*Director, Bureau of Tuberculosis, Hartford Board of Health.

proximately equivalent to 0.5 mgm. of Old Tuberculin.

When many persons are to be tested, especially in schools, the tablet equipment for large scale testing is used. This equipment consists of tablets of Protein Derivative, bottles containing diluent, and, an alcohol lamp. A can of methyl alcohol for the lamp and a can of ethyl alcohol for cleansing the arm, a one c.c. tuberculin syringe, a 26 gauge platinum needle of half-inch length, covered by a metal sleeve and a centimeter ruler for measuring the tuberculin reaction, are all the necessary parts of equipment.

"When injections are to be made, the sterile needle and syringe are removed from a glass tube. The metal sleeve is removed from the platinum needle, which is then heated to a dull red in the flame of the alcohol lamp and permitted to cool. The stopper is removed from the bottle of diluted tuberculin and the syringe is loaded. After an injection, the needle is again heated, a drop of solution is ejected and the test is repeated on the next person."

Using this method, it is quite possible to do 250 tests in an hour, if the group is well organized. The test with the second dose is done in 48 hours on the negative reactors.

Positive reactors are classified as one, two, three or four plus, depending on the extent of edema measured at its widest diameter.

5 mm. to 10 mm. edema .....one plus (+)  
10 mm. to 20 mm. edema.....two plus (++)  
20 mm. and over of edema.....three plus (+++)

A four plus (++++) reaction consists of marked redness, edema and an area of necrosis. If there is no edema at the site of injection, even if a slight redness is present, the test is recorded as negative.

Using P.P.D., 961 tuberculin tests have been made at the Tuberculosis Clinic of the Hartford Board of Health. In no instance have constitutional symptoms been complained of and not one four plus (++++) reaction has occurred. Four plus reactions, when they do occur, are found more frequently among Negroes and Indians than whites and more frequently in extra-pulmonary than pulmonary tuberculosis.

The following chart shows the results of tuberculin testing at the Tuberculosis Clinic at the Hartford Board of Health during the year 1937. Purified Protein Derivative was used in the two strengths as indicated.

The percentage of positive reactions among Negroes, as shown by the chart, is only slightly greater than the percentage of positive reactions found in the whites. The number of positive reactors as a whole will be a little high among the group tested because a fair percentage are contacts.

#### RESULTS OF TUBERCULIN-TESTING WITH P.P.D. IN HARTFORD, CONNECTICUT ACCORDING TO AGE AND COLOR, 1937-1938

Age in Years	Negro			White			Total		
	Pos.	Neg.	%	Pos.	Neg.	%	Pos.	Neg.	%
0-4	3	23	12	9	61	13	12	84	13
5-9	10	24	29	17	126	12	27	150	15
10-14	9	15	37	53	110	33	62	125	33
15-19	15	7	68	160	102	61	175	109	62
20-24	5	1	83	50	16	76	55	17	76
25-29	6	2	75	29	8	78	35	10	78
30-34	8	1	89	16	5	76	24	6	80
35-39	3	0	100	13	3	81	16	3	84
40-44	6	0	100	21	1	95	27	1	96
45-49	5	1	83	9	1	90	14	2	88
50 and over	1	0	100	5	1	83	6	1	86
0-24	42	70	37	289	415	41	331	485	41
25-49	28	4	88	88	18	83	116	22	84
50 and over	1	0	100	5	1	83	6	1	86
Total	71	74	49	382	434	47	453	508	47



Of the 961 tuberculin tests done, 47% were positive and it is interesting to note that a fairly high percentage of adults, in all age groups, were negative to tuberculin.

In a recent survey of tuberculin testing in the United States made by Jessamine S. Whitney and Isabel McCaffrey<sup>3</sup>, out of 53,617 tuberculin tests, 14,788 or 27.6% were positive on the first dose. However only 29,021 had the second strength tuberculin, of which, 4,903 or 16.9% were positive. There were 9,808 negative reactors to the first strength tuberculin who failed to receive their second injections of second strength tuberculin. Assuming that these would have shown positive reactions in the same proportion as those who did receive second strength tests, there were at least 1,500 undiscovered reactors because of the failure to complete tests with second strength tuberculin. If only first strength tuberculin had been used in the 53,617 persons tested, 6,403 positive reactors would have been undiscovered.

Obviously the two dose method is used to avoid unnecessarily severe reactions in very tuberculin-sensitive individuals. The stronger dose is used to detect those individuals whose sensitivity to tuberculosis is less marked.

Dr. Esmond R. Long, Director of the Henry Phipps Institute of the University of Pennsylvania, believes the two dose method should be used if possible, but suggests one-tenth of the final dose for those who say that it is absolutely impossible to give two doses<sup>4</sup>.

It is apparent that a standard procedure for the performance and interpretation of the tuberculin test should be used.

#### REFERENCES

1 and 2. "Supplement to the American Review of Tuberculosis", December, 1934, by Seibert, Aronson, Reichel, Clark and Esmond R. Long.

3. "A Summary of the Results of Group Tuberculin Testing with P. P. D. (Purified Protein Derivative) in the United States," by Jessamine S. Whitney and Isabel McCaffrey, XXXV; 597.

4. Personal correspondence.

#### HIGHLIGHTS OF THE ANNUAL MEETING

The Chairman of the Committee on Arrangements, for the past year a victim of arthritis, collecting birdies on the famous Shenecosset golf course!

The State Commissioner of Health wilting under the piercing rays of Old Sol at the clam bake, begging for a drink — water, coca cola, anything!

Is there a barber in the house? Yes, 1½ miles away!

What did the long grass on the golf course do to some of the members' French vocabulary?

The nimbleness of the fairer sex inside R-14 put many of the old docs to shame.

Dr. Harold F. Bishop, a successful subject for hypnotism! Our genial anesthetist is reported to have found it exceedingly difficult to shake off the power of Dr. Raginsky's spell.

New theories in the treatment of the endocrinopathic child presented by Dr. Aub of Boston.

Another victim of hypnotism proudly displaying visible evidence of wounds sustained while under the spell of the visiting artist the previous evening!

—☆☆—

#### OUR EXCHANGE JOURNALS

This month we add to our exchange list two more publications, Archives of Physical Therapy, published in Chicago, and Calcutta Medical Journal from far off India. The Archives is a neat appearing publication, well printed and carrying articles of real scientific interest. The foreign journal has an English appearance, contains advertisements of many products frowned upon by our national organization, but balances this with scientific material well presented.

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# Presidents' Proscenium

## Shall We Change Our System of Practicing Medicine?

JAMES M. HAYES, B.S., M.D., M.S., F.A.C.S.

President, Minnesota State Medical Association

Minneapolis, Minnesota

Radical changes in the practice of medicine have been discussed and seriously considered in this and many other countries for many years. Some countries have tried about every radical plan proposed. A careful study of any of these plans in their practical application should lead us to ponder before making any change.

An era of depression usually stimulates philanthropic individuals and organizations to action. Perhaps the care of the sick or crippled should justly appeal to these individuals and organizations. Their intentions are, no doubt, the best, but much of their information is gained through improper channels and their work is not directed by those trained for such direction and control. Should these people obtain their information from practicing physicians or their representatives, much waste of time and money could be saved or expended to good advantage.

The medical profession does not claim anything like perfection in the care of the sick, but we challenge any other profession or group of individuals to show greater attempts at advancement in their work than does this profession.

We realize it is difficult for one outside the profession to comprehend the rapid strides the medical profession has made in the recent past.

The profession has been criticized for neglect of the preventive side of medicine. If one could estimate the numerous lives recently saved by the almost complete eradication of malaria, typhoid and typhus fevers; the decided reduction in the prevalence of diphtheria, scarlet fever, smallpox and other contagious diseases, it could not justly be said that this side of medicine is being grossly neglected.

The general practitioner has not done his share on the preventive side of medicine, but this is

rapidly being remedied by medical organizations all over the country.

The commotion stirred up recently by such organizations as the Committee for the Cost of Medical Care, The American Foundation for the Study of Medical Care, and the 430 self-appointed physicians, has given the public the impression that the medical profession is divided in regard to future policy.

A study of these various committees convinces one that none of these committees represents the medical profession; none represents the profession who are really responsible for the care of the sick.

The impracticable suggestions of the majority report of this first committee are well revealed in a study of the minority report of the same committee. In their report they include hospital care, nursing care, dental and all other services rendered for the sick under medical care. The public has gained the impression from their report that all this expense is for physicians' fees alone. An analysis of their figures shows that only 29.8 cents of each dollar is paid to the physicians. This committee could have made their work more valuable and explicit had they given a comparison of expenditures for luxuries and other purchases of the average family. This study has been made and recorded by Dr. Scammon of the University of Minnesota. He had shown that the average family spends as follows per year:

Motor car..	\$150.00
Tobacco ..	67.00
Candy..	37.00
Drinks and chewing gum.....	34.00
Radio and music.....	25.00
Physicians...	24.00



In addition, 125 million dollars is paid per year to various healers other than physicians, and 350 million dollars is paid each year for patent medicines.

Much more could be said of the inconsistencies of this committee's report, but this should serve to show why the report was not received favorably by the medical profession.

The work of each of the above-mentioned committees has been based upon equally poorly conceived plans. Of the 430 physicians who signed the petition favoring government control of medicine, more than one-third of this number have now asked to have their names taken from this list. Many did not even know that the proposal for government control of medicine was included in this petition to which they attached their signatures. Few of these men have ever acquainted themselves with the actual working of government controlled medicine either from the point of view of the sick or the cost to the government.

Germany has had government control of the practice of medicine for over fifty years and today has a completely government-controlled system. Their present death rate is 12.3 per 1000; while in the United States the death rate is but 10.7 per 1000 population. Today 40 per cent of all the money paid for medical care in Germany goes to the politicians and other non-medical men, while the physician who is entirely responsible for the care of the sick receives only 60 per cent.

Scammon estimated that socialized medicine in Minnesota alone during the year 1934 would have cost the State \$20,000,000, or one-half the entire state tax levy.

The so-called Medical Guild, or the system under which we practice medicine in this country today, has existed for over 500 years. It has withstood the attacks of ambitious politicians and other outside aggressors, and has satisfied the properly informed man that no better system has yet been proposed.

While we are all agreed that we intend to do better and are ready for every proven advancement, it is an acknowledged fact that at no time in the history of the world were the sick better cared for than they are in this country at the present time.

As shown above, the average family pays about \$24.00 a year for physician's fees, while at the

same time much more is spent for various luxuries as motor cars, tobacco, candy, chewing gum, etc. For the industrious individual this is not such a burden as the propagandists would have you believe.

The indigent poor should be, and always will be, charges of the government. The near-indigent are really the only problem. We are told that they do not have adequate medical care. The fact is, practically all of these individuals are taken care of just as adequately as the well-to-do. He is not even questioned by the physician as to his financial status. When the patient is well, the physician is frequently disappointed that his services are not recognized by, at least, a slight remuneration; but, usually it is the physician who is left to do the worrying. If some of these philanthropic individuals or organizations would suggest turning over some of these vast sums to the medical organization and let them put these finances where they can do the most good, it might be worth while. We do not oppose outside assistance, but we do oppose the control of the practice of medicine by those who know nothing about it.

In Hennepin County, Minnesota, we have an organization called the Medical Service Bureau, an adjunct of the Hennepin County Medical Society. This organization is for the purpose of caring for the near-indigent. All charity hospitals and organizations, as well as the Relief Department, when they find patients just above the line where they can accept them, refer such patients to the Medical Service Bureau. A list of medical men of the Hennepin County Medical Society have agreed to take these patients for whatever they can pay. In this county of about half a million people, only 64 patients applied to this organization for care last year. Many of these patients, when they discover they are not eligible for charity service, go back to their family physicians and are taken care of for little or nothing, as they always have been. We hope to extend this organization over the State.

Much propaganda is put out over the country as to the unequal distribution of medical men and the lack of medical care in some sections. Some time ago our State Board of Control was appealed to from a section in the northern part of

# Association of Connecticut Tumor Clinics

## Carcinoma of the Cervix\*

RICHARD DRESSER, M.D., Boston, Mass.

I wish to present briefly some work which has been carried out by Dr. J. V. Meigs and me at the Massachusetts State Cancer Hospital on irradiation of cancer of the cervix uteri.

First, it will be necessary to consider the physical distribution of radiation within the human pelvis as delivered by a radium applicator within the cervix and by 200 kilovolt Roentgen rays applied externally. The Roentgen rays and the gamma rays of radium follow the same law in regard to intensity with variation in distance, that is, intensity varies inversely as the square of the distance. In more simple terms, a doubling of distance reduces the intensity of radiation not to one-half, but to one-fourth.

If 3000 milligram hours of radium are applied within the cervical canal and the distribution of the rays is expressed in terms of erythema, that is, the amount of radiation that would be necessary to produce a faint reddening of the skin, it will be found that at 1 centimeter from the applicator 6 erythema doses are delivered; at 2 centimeters, chiefly because of the inverse square law, only 2 erythema doses are delivered, and at 3 centimeters the dose falls to only 1 erythema. Since it takes between 5 and 10 erythema doses to control epidermoid carcinoma, it is obvious that this amount of radiation will take care of disease only when it is localized in the cervix. Even though the application were increased to 6000 milligram hours, there would not be sufficient radiation to affect carcinoma in the broad ligaments.

If one employs 200 kilovolt Roentgen rays externally, it is possible to deliver about 4 erythemas to the region of the cervix. In the more peripheral portion of the pelvis approximately 6 erythemas may be obtained. By combining the two, that is, the 200 kilovolt external radiation

and the 3000 milligram hour radium application within the cervix, a much more uniform distribution of radiant energy can be obtained than by Roentgen rays or radium alone. In the region of the cervix the total dose amounts to 10 erythemas and the parametrium receives 6½ erythemas.

Seventy cases treated by the combined Roentgen ray and radium method have been followed for 3½ years. These cases were irradiated without selection, the only prerequisite being that they should not have received treatment previous to entering our clinic. The Roentgen ray dose was given first, over a period of approximately 2 weeks, and was followed by the radium application.

For comparison with this group, a series of 150 cases treated with radium alone has been collected. For further comparison, 60 cases which were handled surgically are shown. It must be remembered that not more than 25 per cent of the cases which report to a large clinic are suitable for surgery and therefore this represents a small selected group. The results are as follows: surgical group, 38 per cent living and free of disease at the end of 3½ years; radium alone, 25 per cent; combined Roentgen rays and radium, 35 per cent. If these patients are grouped according to the extent of the disease, the results are as follows:

	A	B	C
Surgery	46%	44%	25%
Radium	80%	53%	18%
Combined treatment	100%	100%	35%

The group D cases are not listed, since their prognosis is entirely hopeless from any standpoint.

Thus far, we have had no difficulty with bladder or rectal complications from the combined

(Continued on Page 349)

\*Read before the 9th meeting of the Association held at Backus Hospital, Norwich, April 14.



# The JOURNAL of The Connecticut State Medical Society

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**MANUSCRIPTS.**— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

**ILLUSTRATIONS** — Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

**SUBSCRIPTIONS.**— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

**REPRINTS.**— Reprints of papers and obituaries may be obtained from the Editor at cost.

## • Editorials •

### 14th CLINICAL CONGRESS

Elsewhere in this issue is presented the advance program of the Clinical Congress for 1938. The list of speakers is an impressive one and should be a source of considerable pride to the program committee who have arranged the program. In the language of the promoter it is bigger and better than ever.

The members of our Society who have watched the progress of this enterprise since its abecedarian days realize that its increasing success has in great measure been due to the changes in the type of program from year to year. An innovation for the coming meeting will be found in the three day special courses which are offered to registrants. These are five in number and aim to give a comprehensive treatment of each subject. Because of physical facilities the number of those taking the courses must be limited. We would urge, therefore, early registration if it is intended to take advantage of these opportunities. Another innovation is the admittance without fee to medical students and hospital house officers. The committee feels that this extension of opportunity to the younger members of our profession is not only a pleasure but a duty. The increasing number of out of state registrants each year is a silent but forceful witness to the great usefulness of the Clinical Congress of The Connecticut State Medical Society.

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### THE LAWYER FAVORS FEDERAL MEDICINE

The Yale Law Journal in its issue for May 1938 takes up the gavel in favor of group practice of medicine. It refers to the high cost of medical care as a "common ailment in the American household" of long standing. It informs us that most of the plans for reducing the cost of medical care have been bitterly opposed by organized medicine and in particular by the present regime of the American Medical Association. These objections, the Law Journal tells us, arise chiefly from the fear that "continued growth of group practice will seriously impair

the economic position of the ordinary practitioner”.

The public has such a vital interest in assuring a fair trial to such organizations as Group Health Association, Inc., in Washington, D. C., that, according to our legal friends, everything should be done to stop medical societies from expelling members who sign contracts to serve such group organizations. The physician's property right has been injured by such an expulsion and he should have no difficulty in proving this point. The practice of medicine is even considered a trade because of the impact of modern business upon the profession and the Medical Society of the District of Columbia is acting in restraint of trade in expelling a member doing such contract practice. The parting shot delivered by this legal barrage comes when we are informed that the most effective alternative, if dissension within medical ranks does not produce the desired results, would be to press present plans for a Congressional investigation of organized medicine.

What a far cry from the days of the white haired family doctor, covering mile after mile of the countryside behind his faithful horse! What an involved situation in comparison with that existing at the beginning of the present century when fees were often paid in stable articles of food and men and women labored untiringly with little thought of personal gain! Group Health Association, Inc., has been in difficulties since its inception in 1937. Supported as it is by Federal funds allocated from the Home Owner's Loan Corporation, its validity to practice medicine has been productive of legal proceedings, the final word in which has not yet been obtained. The supporters of cooperative medicine uphold such an organization as just and proper on the grounds that the people of the District of Columbia are entitled to such medical care at a distinct saving over the old system of individual physicians and fees arranged between patient and physician. Organized medicine looks upon this organization as one of the boldest steps in government encroachment upon private practice, effective over a geographical area and among groups of employees where a large proportion are not in need of such aids to meet the costs of illness. Like many other developments of our present government, Group Health Association, Inc., if successful is to have counter-

parts in other large centers of our country. Apparently the legal profession is aligning itself with governmental plans for the practice of medicine. Organized medicine must meet these problems, not in a reactionary manner but by enlightened, informed opinion crystallized into action.

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### EASTERN POINT

In its heyday Eastern Point was the Hotel Griswold and the Hotel Griswold connoted all that one could desire in the form of a modern, well ordered hostelry. That like many a similar resort today is but a memory. Two more beautiful days could not have been found in this period of depressing New England weather. The scientific program was a tribute to our efficient Administrative Secretary. Yet, notwithstanding the reputation of Eastern Point and the fact that summer was just around the corner, the membership of the state did not support this annual meeting by its presence as it was anticipated or as it should have done.

The innovation of calling the House of Delegates together for the transaction of the majority of its business one week earlier was successful, but one must admit that the adjourned meeting of the House on the first day of the regular annual meeting program was somewhat lacking in attendance and coherence. Just whether or not the Council will see fit to repeat this experiment at New Haven in 1939 will depend on the reaction from the various County Associations.

We owe the local Committee on Arrangements a debt of gratitude for the opportunities afforded the members for two days of intellectual and social investment. The clam bake should have compensated for the zero temperature indoors. The Submarine Base contributed a series of interesting developments in modern naval warfare. The golf course supplied plenty of trying moments and a wealth of delightful exercise. The commercial exhibits were numerous and merited the careful attention of all. Those who listened to Hon. Frederic C. Walcott were impressed with the seriousness of our predicament as a nation. Then, as is so often his custom, our retiring president, Dr. Turkington, poured oil on the troubled waters and gave us new hopes for the future of our profession.



Do we need three days instead of two in order that all may have their fill of scientific papers and not miss any of the opportunities afforded for social intercourse? Do we need more section meetings to include every specialty in medicine or is the annual meeting already broken up into too many small groups? Should the emphasis be placed on the scientific program or does the Clinical Congress each year supply that need in sufficient quantity? What is your idea of an annual meeting? The Journal affords an opportunity for frank discussion of this subject so that before we meet in New Haven in 1939 your Council may have sufficient response from every corner of the state to aid it in laying plans. We welcome your thoughtful criticism.



### ADVERTISING

The New England Journal of Medicine announces a revenue from advertising for the year 1937 of more than twenty thousand dollars. This represented its largest source of revenue. The operating loss of that same Journal for 1937 was about another twenty thousand dollars. The Journal of the Connecticut State Medical Society, like the New England Journal and like the majority of other journals, depends for its income chiefly upon its advertisers. Insofar as the advertising in our Journal is increased the deficit which the Society meets each year will be decreased. This deficit does not attain any such proportions as it does in the case of our neighbor, yet it does and must exist if the Journal is to be more than a publication of a few pages. The problem is two fold, that of securing new advertisers and of keeping those already appearing in our columns. If our readers are not minded to send us new advertising prospects, they may at least evidence a practical interest in the firms who are giving us support. Again we urge our readers to give first consideration to Journal advertisers when purchasing products and wherever a firm offers something for the asking take the initiative and thus assist your editors.



### CANCER MANUAL

The Executive Cancer Committee of the Iowa State Medical Society has recently published a cancer manual which contains standards for diagnosis and treatment. It offers to the pro-

fession the essential symptomatology, the recognized methods of diagnosis, and a survey of the accepted therapeutic procedures for the more common malignant growths. It is recognized that in the campaign being waged by lay and professional groups the physician must become cancer conscious and when thus aroused must have ready at hand a working knowledge of the various forms of the disease.

The Iowa State Medical Society has accomplished two very valuable goals in presenting this manual, it has given to its members an agreed standard for the treatment of the more prevalent forms of cancer and it has published these standards in an accessible and readily assimilated form. The Manual is available for the sum of \$1.00 from the publisher, The Athens Press, Iowa City, postage prepaid.



### THE HARTFORD HOSPITAL BULLETIN

With a touch of medical history on its cover, the Hartford Hospital Bulletin made its second appearance in May. As far as we are aware this is the first bulletin of its kind to emanate from a general hospital in this state. Its aim is a worthy one, "To become one more link in the chain which will unify the greater Hartford Hospital, which will acquaint its staff members with the interests and activities of one another, and preserve the bonds of mutual regard which have long existed between the hospital and its many lay and professional friends and associates." It is attractive, its contents are varied and interesting, it should fulfil a real purpose. We congratulate the editor and his associates.



### THE CANCER PROGRAM IN CONNECTICUT

The work of the tumor committee of the State Society, together with the State Department of Health, has attained sufficient prestige to be written up in a recent issue of the Journal of the American Medical Association where it may serve as a guide or a model, if you wish, by which other state societies may pattern their cancer programs. As pointed out, the program has not been in operation long enough yet to prove its value but it is an example of the feasibility of coordinated action by different groups in attempting to make the public "cancer conscious".

# From the Secretary's Office

CREIGHTON BARKER, M.D.

258 Church Street

New Haven

## The Annual Meeting

The New London meeting is over; it was well attended, registration just about equalled the number who were in Bridgeport in 1937. It could have been warmer in the auditorium, but it was sunny and fine outside and those who did not attend missed an unusual event in the history of the Society.

The Secretary wishes to take this opportunity to thank Drs. Wellington, Wies, Cheney, and Satti and their colleagues on the Local Committee on Arrangements for the hard work that they did, and the secretaries and chairmen of the special sections for arranging their programs. The Society is again indebted to Dr. H. B. Lambert for generously letting us have the invaluable service of his secretary, Miss Leech.

## The Committee of Twenty

The recommendations of the Committee of Twenty that was appointed to inquire into medical practice within the State are also published. The House of Delegates voted that the report and recommendations be accepted except recommendation 2, which was referred to the Council for consideration and presentation to the House at a later date. Recommendation 2 provided for a study of medical practice in Connecticut, to be made by the Society at a cost not to exceed \$12,000.

## The Program Committee

The By-laws of the Society have been amended to provide a Program Committee whose duties will be to arrange the Scientific Programs for meetings of the Society. The Committee is nominated by the Council, elected by the House

of Delegates, members to serve three years, with a new member to be elected each year. The first Committee elected is, G. Gardiner Russell, Hartford to serve until 1941; A. Nowell Creadick, New Haven, to serve until 1940; Daniel C. Patterson, Bridgeport to serve until 1939.

## The Committee on Public Relations

A standing committee on Public Relations was elected by the House of Delegates. The duties of this Committee will be to inquire into and pass upon such phases of public information as deal with the care of the sick and the practice of medicine. The Committee was elected as follows:

Stuart H. Bowman, Stamford, *Chairman*  
 Harry L. F. Locke, Hartford  
 Edward G. Reade, Watertown  
 Ella Wilder, Middletown  
 Michael J. Lawlor, Waterbury  
 Edmund L. Douglass, Groton  
 Elliott H. Metcalf, Rockville  
 Ralph L. Gilman, Storrs

## Council Meeting

It was hoped that it would not be necessary for the Council to meet during the summer months, but a meeting in July will be required and the meeting will be held in Norwich on Thursday, July 7, as guests of the President, Dr. Campbell and the Councilor from New London County, Dr. Gildersleeve.

## 1939 Annual Meeting

The 147th Annual Meeting of the Society in 1939 will be held in New Haven on dates to be determined by the Council.

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## SECTION OF Orthopedic Surgery

### At the Annual Meeting of State Society

On the afternoon of June 1, the Section was entertained by Dr. John F. O'Brien at the Sea-side Sanatorium in Waterford. After an enjoyable lunch the meeting was called to order by Dr. M. K. Lindsay, chairman of the section. By-laws were adopted and several new members elected. Dr. O'Brien presented his experience in the treatment of spinal tuberculosis in children. He discussed the relative merits of conservative treatment and the more radical fixation treatment. Many cases were shown which indicated that, in his hands, the conservative treatment was superior. General discussion agreed with Dr. O'Brien. Other short papers were presented.

### Social Destiny of Crippled Persons, Berlin, Germany

The Minister of Labor of the present German government recently established a commission for the investigation of those who have received benefits as crippled individuals. A particular effort will be made to enumerate all cases of crippling and maiming and to note whether treatment has been too hastily or too tardily begun. Vocational training schools will be inspected and plans for expanding their facilities will be studied.

### Inauguration of Professor Rene Leriche, Paris, France

Professor Leriche conducts probably the most famous clinic of France which is a part of the University of Paris, better known as the Sorbonne. His ascension to the chair of experimental surgery will be hailed as due recognition of his unusual abilities. His particular work in blocking with procaine the sympathetic system about an injured part to prevent infection of that part should now receive additional recognition.

### Dr. Luis Tamini

Dr. Luis Tamini, Professor of Orthopedic Surgery of the Facultad de Medicina of Buenos

Aires, died January 17, aged 56. Those who have taken the South American medical cruises will vividly recall his clinic in Buenos Aires.

### Traumatology

Andry — Paris, 1744, first used the term "orthopaedique" to apply to surgery of children. In this sense the term still applies throughout Central Europe. The "Kindersurgeon" does the orthopaedics of central Europe and adult surgery is performed by the General Surgeon including traumatological, abdominal and orthopaedic surgery. This is not true, however, in Great Britain or the United States. The English speaking countries have adopted the term but have also somewhat confused its usage. Too often the "ae" is changed to "e", thus "orthopaedic" becomes "orthopedic" and the meaning distorted. It is therefore refreshing to learn that Professor Putti, Italy's outstanding orthopaedist, has suggested a combination of two terms, designating those who practice "surgery of the organs of movement" as *Orthopaedic and Traumatic Surgeons*. Because, he adds, they are the surgeons who can best care for most traumatic conditions.

### Medical Libraries

While those who limit their work to Orthopaedic Surgery constitute a relatively small group within the State Society, they nevertheless have specific interests which can be served in a number of ways. In this regard, it is suggested that the librarians of the various local medical societies about the state consider the purchase of up to date monographs on current orthopaedic subjects as they come out. Too frequently medical librarians about the state have shown relatively little interest in subscribing to orthopaedic journals, both foreign and domestic. The French and German literature contains very active journals devoted to bone and joint diseases. It is suggested that the members of this section urge their local librarians to add such journals to their subscription lists.

### Dr. Arthur Krida

The New Haven Medical Association was addressed April 20 by Dr. Arthur Krida, New York, on "Treatment of Fracture of the Hip."

## REPORT OF THE MEDICAL VISITORS OF THE NEURO-PSYCHIATRIC INSTITUTE OF THE HARTFORD RETREAT TO THE BOARD OF DIRECTORS

As members of the Board of Medical Visitors, we have watched with interest from the beginning, the development of plans to strengthen the educational program of the Institute. In our opinion, there is a great opportunity in the field of psychiatric nursing, and the need for educators and leaders in this field is more evident now than ever before. We regard the inauguration of the Postgraduate Course in Psychiatric Nursing, as a logical response to this demand. It has never seemed to us that the short period of affiliation with a psychiatric institution, which the average nurse gets, is anywhere near adequate training in this field. In the field of psychiatric nursing, more than in any other branch of nursing, the method of approach, the technique — let us say — is paramount. The well-trained psychiatric nurse is more than a conduit through which flows the physician's directions — she is a fellow-therapist, and participates actively with the physician in his curative efforts. It is essential, for this reason, that the psychiatric nurse have more than average ability, more than average poise, as well as specialized study.

The Institute is fortunate in having obtained the services of Miss Annie W. Goodrich to develop this Postgraduate Course, and this in itself is evidence enough of the high standards which will obtain. As the leading figure in the world of nursing today, Miss Goodrich's active participation is of significance and presages, we hope, the development of an outstanding Postgraduate School of Nursing.

We also endorse the recent agreement with Wesleyan University and feel that it marks a new step forward in the status of the psychiatric institution. We cannot help but feel that in addition to the opportunities which are open to the graduate student who is working for his Master's degree, there is another phase to the work of the psychiatric aide, which should not be minimized.

It is difficult to conceive of any type of occupation which is as pregnant with useful experience as the work of the psychiatric aide. In practically every profession and in most commercial pursuits, the basic need is an understanding of other human beings — how to deal with them

and how to get along with them. These things cannot be learned from books, although many people think they can. But they can be learned by the actual study of the mechanism of behavior and the components of personality.

The psychiatric aide has this opportunity — he has his courses in normal and abnormal psychology, he has training in the methods of the Institute. And in addition, he has the opportunity to supplement this training with practical experience.

As a prelude to a career as a teacher, social worker, personnel worker or in similar fields, the experience of the psychiatric aide should be invaluable.

Nor should we lose sight of the fact that the time is coming — if it is not here already, when the work of the psychiatric aide can be a satisfying career in itself. Things have been happening in the field of psychiatry these past few years, and many of the old taboos have withered away. There is a growing realization that the idea of the psychiatric aide as a personal tutor, initiated and developed at this Institute, might find practical application both in preventive work, and in the post-hospital days of readjustment.

We are not at all alarmed by such a prospect, in fact we would rather welcome a more extensive use of these aides. This is a field rich in possibilities.

We are very much pleased to see the number of people who are coming to the Institute for help, before anything drastic has occurred in their life in the way of a "nervous breakdown", so-called. A person would be considered hopelessly old fashioned now if he waited until he had a toothache before consulting his dentist. Or if he saw his physician only when he was ill, and not otherwise. Yet, for many years people have been so misinformed that they refused to acknowledge the need for psychiatric care until the need was critical.

This period seems to be passing, if we can judge by the number of preventive cases which are now coming to the Institute before a frank breakdown. People are beginning to realize that there is no more reason to be afraid of the psychiatric institute than of any other hospital.

To make this public re-education most effective, the hospital itself must continue to conform to rational, common-sense practices and must go more than halfway in clearing up misconceptions.



It can do much in this direction by eliminating the routine "institutional" practices which have been characteristic of the mental hospital for two generations.

The most effective medium for public education is, of course, the practicing physician. It is good that the Institute has continued to cooperate so closely with the physician in the community for, through him, the public itself can be informed.

The Medical Visitors look with favor on the continued distribution of medical abstracts and translations to members of the profession in the State as one of those points of contact which should be beneficial to both the practitioner and the Institute.

These, and other activities of a similar nature, are bound to result in a better understanding of the purposes and the facilities of the Institute by the profession as a whole, and through them, to reach the general public.

It has been stimulating to watch the continued progress of the Institute's program and a pleasure to advise in the inauguration of each new step.

George Blumer, M.D.  
D. Chester Brown, M.D.  
B. Austin Cheney, M.D.  
James D. Gold, M.D.  
Frederick G. Graves, M.D.  
Thomas P. Murdock, M.D.  
Elias Pratt, M.D.  
Walter R. Steiner, M.D.  
Daniel Sullivan, M.D.

Hartford, Connecticut  
April 21, 1938

—☆☆—

### CANCER OF CERVIX

(Continued from Page 342)

Roentgen ray and radium treatment. The usual number of fistulae have occurred, but they have been attributed to the extent of the disease and have not been the direct result of radiation. The convalescence from radiation has been shorter

and much less stormy than when radium alone was employed. The amount of external radiation delivered has been limited not by the tolerance of the deeper tissues, but by the reaction of the skin.

A series of cases is now being treated by million volt Roentgen rays applied externally, followed by an intra-uterine application of 3000 milligram hours of radium. Since the higher voltage rays are approximately 20 per cent more penetrating than the 200 kilovolt rays, and since the skin tolerance is much greater for the shorter wave lengths, it is now possible to deliver a dose which is not limited by skin reaction, but by the tolerance of the deeper tissues. It is hoped that with this new type of treatment there will be a greater salvage in those cases in which the disease has extended beyond the cervix.

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### SHALL WE CHANGE OUR SYSTEM OF PRACTICING MEDICINE?

(Continued from Page 341)

the state. They were informed that some patients suffered greatly and that others had died because of inaccessible medical services. A committee from our State Medical Association spent one Sunday up in that section investigating the situation. We called in for conferences the various medical men and others concerned in this report. We found that, even in the most isolated districts, no one was more than 30 or 40 miles from a doctor. The doctors had never failed to make a call when requested. Every patient who had been reported in the inadequate-care list, had either refused to follow the doctor's advice or failed to call the doctor in time for him to render proper care. We could not see where any other system would have improved the care of these individuals.

Again I say, we are ready to accept any outside assistance, provided the assistance is given in the proper spirit. Any outside assistance which would interfere with the control of medical care by any person other than the practicing physician would be bad for all concerned.

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## Our Neighbors

### NEW YORK

Dr. George Gray Ward of the Woman's Hospital, New York City, at his own request has been relieved as chief surgeon of the institution. The board of governors of the hospital has appointed Dr. Ward chief surgeon emeritus and consulting surgeon. He will continue to teach at the hospital. A reception was recently tendered Dr. Ward at which time he was presented with a silver bowl by the board of governors.



### NEW JERSEY

The Medical Society of New Jersey is considering the establishment of a Committee on Medical History with a sub-committee in each county society. Many of the members of this State Society are known to be descendants of former presidents, some of two or three presidents. It is with a view to obtaining and recording a list of these members that this committee will be formed. Such a committee would be of valuable assistance in recording the important events in the medical history of New Jersey.

## - NEWS -

### *from County Associations*

#### Hartford

James S. Dean, M.D., of the Hartford Neuro-Psychiatric Institute of the Hartford Retreat, received the degree of Doctor of Medical Science at the 184th annual commencement exercises of Columbia University last month.

Vincent F. Mendillo, M.D., 37, chairman of the New Britain Board of Health Commissioners and prominent in medical circles in that city, died suddenly of a cerebral hemorrhage on the morning of May 20. Dr. Mendillo was born and educated in New Haven, graduated from Sheffield Scientific School and Yale University School of Medicine, and served an internship at

the New Britain General Hospital. At the time of his death Dr. Mendillo was an assistant attending surgeon at the Hospital.

#### New Haven

J. Eugene Black, M.D., 58, for many years a prominent physician in Shelton, died in the New Haven Hospital on May 30 after a long illness. Dr. Black was a native of Bridgeport, a graduate of the Yale University School of Medicine, and attending surgeon at the Griffin Hospital, Derby.

On May 12th the Yale Chapter of Alpha Omega Alpha, college medical honor society, announced the election of twelve members among the students in the Yale School of Medicine, and two honorary members, Dr. Grover F. Powers, Professor of Pediatrics at Yale, and Dr. Frederic A. Gibbs of the Harvard Medical School. The new members, who were initiated at a banquet held in the Yale Faculty Club, are Roy N. Barnett, Woodmere, N. Y.; Joseph A. Criscuolo, Jr., New Haven, Conn.; J. Peter Murphy, Minneapolis, Minn.; Edward Nichols, Convent Station, N. J.; Nelson K. Ordway, Claremont, Cal.; Douglas S. Riggs, Saloniki, Greece; Nathaniel E. Rossett, New York City; Ernest L. Sarason, Syracuse, N. Y.; Bernard M. Schwartz, Brooklyn, N. Y.; Rebecca Z. Solomon, Meriden, Conn.; Henry B. Strenge, Schenectady, N. Y.; and Louis G. Welt, Elizabeth, N. J. Following the banquet and initiation, Dr. Gibbs gave the annual Alpha Omega Alpha lecture. His subject was "Electro-Encephalography."

The Waterbury Medical Association presented its second forum to the people of Waterbury on Thursday, April 21, 1938, at 8:15 P.M. at the Medical Association Building, 30 Central Avenue. Dr. Frederick T. Lord, Professor of Medicine at Harvard Medical School, spoke on the subject of "Pneumonia." He stressed particularly the value of serum treatment and his talk was illustrated by a motion picture produced by the Massachusetts Department of Health. His paper was discussed by Dr. Patrick J. Brennan and Dr. Orpheus Bizzozero, after which there was general discussion from the floor.

The Waterbury Medical Association presented its third forum to the people of Waterbury on Thursday, May 19, 1938, at 8:15 P.M. at the Medical Association Building. Dr.



Grover F. Powers, Professor of Pediatrics at Yale Medical School, spoke on facts that every parent should know about the care, feeding, and psychology of infants and children in order to insure their good health. His remarks were discussed by Dr. John E. Farrell and Dr. Joseph L. Hetzel of Waterbury, after which there was general discussion from the floor. This is the last of the public forums to be presented this spring. It is planned to resume them in the fall.

On May 15, 1938, Dr. Charles A. Farrell, 46, died at his home. During the Great War, Dr. Farrell served both in the Medical Corps of the United States Army and in the Medical Corps of the British Army. He has been practicing in Waterbury ever since the war.

## Correspondence

June 4, 1938

Dr. Stanley B. Weld,  
179 Allyn Street,  
Hartford, Conn.

Dear Doctor Weld:

I read through the Venereal Survey in the June number with considerable interest. I was much surprised to note that among the recommendations absent in Group II the most important to my mind and certainly the most feasible was absent. In Connecticut some 75,000 patients are admitted to the hospitals in the course of one year. Most of the hospitals I suppose carry on routine Wassermanns or Kline tests in the general wards but the majority do not do them on Private patients. If a routine Wassermann or its equivalent could be conducted on all hospital admissions the entire State would be tested without any serious objections in say fifteen years.

It is true that it might cause some difficulty in the tonsil patients admitted into the wards and there might be some difficulty in having so called Private Hospitals carry out the proceeding but it would seem to be well worth the effort and I should think the most easily carried out of all suggestions and the most embracing as well.

It may be of no value and the objections may be insurmountable but in any event it is now yours to dispose of as you will.

Yours very truly,

P. F. McPartland, M.D.

## • OBITUARIES •

JOHN FRANCIS DOWLING, M.D.

1856-1937

John F. Dowling was born in Meriden, Connecticut, on July 8, 1856, the son of Peter and Elizabeth (Moran) Dowling.

After graduating from the Meriden Public Schools and the Meriden Academy he studied Medicine in the medical department of the College of the City of New York, now New York University, and in the Long Island College Hospital from which he was graduated in 1890.

He first began medical practice in Thompsonville and after five years moved to Hartford where the remainder of his life was spent.

He was a member of the Medical Staff of St. Francis Hospital from its founding, and served as president of the Staff for nearly twenty years. Although his resignation was tendered in 1935 the Board of Directors of the Hospital, appreciating his valued services, did not accept it for a year when his failing health made it obligatory, and he was then elected president emeritus.

He maintained a very active interest in all medical societies and served as president and trustee of the Hartford Medical Society, president and a member of the board of directors of the Hartford County Medical Association, vice-president of the State Medical Society, and was a fellow of the American Medical Association. He was a member of the consulting staffs of the Hartford, Mount Sinai, Municipal and Bristol Hospitals.

He gave unstintingly of his time to Hartford and the nation, having served for four years as a member of the Board of Health of the City of Hartford, and during the World War he was a member of the Medical Section of the Connecticut State Council of National Defense, chairman of the Hartford County Medical Defense Com-

mittee and a member of the Board of Medical Examiners for the Hartford Medical Reserve Board.

Dr. Dowling is survived by his wife, Margaret J. Dowling, and three children, Attorney Leo J. Dowling, Mrs. James L. Crowley, and John Francis Dowling, Jr., and one grandchild, Mary Susan Dowling.

Dr. Dowling essentially gave the fifty-one years of his professional life entirely to humanity and his chosen profession, his only other interests being his family, where he was the ideal husband and father, and his religion which he practiced as an ideal Christian gentleman. His public services were all given in a medical way for the public's good. Although the last few years of his life were removed from active medical work he was never happier than when entertaining other physicians and discussing medicine actively with them. His Maker has claimed him but he will be long remembered as a benefactor to humanity.

James F. Lynch M.D.



#### ALBERT FIELD, M.D.

1844-1937

Dr. Albert Field was born in Bloomville, N. Y., January 20, 1844. He attended Dartmouth College, the University of Michigan, and later Long Island College Hospital from which he was graduated in 1867.

In December 1869, he married Henrietta E. Brigham of Tolland, Conn., then moved to Ashland, New York, where he began the practice of medicine.

In 1873 he moved to East Hampton, where he joined the Middlesex County Medical Association, and the Connecticut State Medical Society. He continued to practice for nearly fifty years.

After he retired from active practice Dr. Field spent the winters in Springfield, Mass., but always returned to East Hampton for the Summer. He kept his keen mind to the last, being an inveterate reader, and spent a good deal of his time visiting old patients. He was taken ill on August 5, 1937 and died in Springfield, Mass., August 25, 1937 of prostatic hypertrophy and associated conditions.

Norman H. Gardiner, M.D.

#### FRANK KIRKWOOD HALLOCK, M.D.

1860-1937

As medical director and president of Cromwell Hall, Inc., in Cromwell, Middlesex County, an institution for the treatment of nervous and medical invalids, Dr. Hallock was successfully continuing the work begun by his father and was favorably known throughout the country as a neurologist of repute and one of the most prominent physicians of Connecticut. He was born at Oyster Bay, Long Island, New York, August 18, 1860, a son of Dr. Winthrop Bailey and Mary Kirkwood (Kent) Hallock, and represents one of the oldest families in America.

Dr. Hallock traced his ancestry to Peter Hallock, one of the thirteen Pilgrim Fathers, who under the leadership of the Rev. John Youngs in 1640 fled from civil and religious oppression in England and landed in New Haven.

At his father's death, Dr. Hallock became medical director and proprietor of Cromwell Hall, a model institution for the treatment of nervous invalidism and for many years had wisely and successfully guided its destiny.

He was one of the founders of the Middlesex Hospital at Middletown, serving as secretary of the corporation from 1895 until 1907 and continuing as a director and member of the medical board and as consulting neurologist of the institution. The various medical papers, addresses, etc., that he has written have dealt chiefly with the clinical aspect of nervous disorders and invalid states.

Dr. Hallock was married by Rev. Edward Everett Hale in Boston, May 7, 1890, to Katherine Camp Avery. Of this union, five children were born.

Dr. Hallock won the personal affection, esteem and admiration of his fellow physicians, not only by his talent, but by his marvelous ability to adjust differences and to smooth the way of life.

We valued his friendship and profited by association with him and by his death we are filled with a sense of personal grief and loss.

He was strong of character, clear of thought, sound of reason, decisive of action but with a great capacity for human understanding.

He was possessed by the spirit of progress and that forcefulness which achieves its purpose; yet his manner was always gentle.



He enjoyed the admiration, love and respect of all who worked with him, an able physician and a wise counsellor and a valued friend.

He was a great adjuster. He possessed an uncanny ability to set people right with themselves and with their associates. He played his part in the drama of the progress of neurology. A man whom we knew and loved as a friend, and admired and respected as a colleague.

With our grief at Dr. Hallock's passing there is a gladness that we were privileged to have had him for a friend.

Jessie W. Fisher, M.D.

James Murphy, M.D.



### EDWARD K. ROOT, M.D.

1857-1937

Dr. Edward K. Root was born in Hartford, November 22nd, 1857, being the son of Edward K. and Matilda (Coit) Root. After a preliminary education in the public schools of Hartford, he studied medicine and received the degree of M.D. from the University of the City of New York in 1879. Then, after spending a few years in medical study abroad, he returned to Hartford to practice, and so continued until his retirement in 1923. He was elected a member of the Hartford Medical Society on June 18th, 1883, serving as its Librarian from 1889 to 1900, as its President in 1910, and finally serving as one of its Trustees from 1908 to 1933. He was especially interested in its Library, and loved to go into the stacks to browse around. Civic and hospital duties demanded a good deal of his time during his medical career, for he was Chairman of the Hartford Board of Health from 1899 to 1902 and served on it until 1913, having previously been a health inspector from 1893 to 1899. He also served on the State Board of Health from 1899 to 1917, acting as its President from 1909 to 1917. Then, when the Public Health Council was organized, he became its Secretary from 1917 until he resigned in 1929. He became one of the visiting physicians to the Hartford Hospital in 1889, and served until 1923 when he acted as one of its Consulting Physicians until his death. He was elected one of its Directors in 1918. He was Visiting Physician to the Hartford Retreat from 1887 to 1923, and afterwards on its Medical Council. He was President of the Connecticut State Medical Society in 1917 and

President of the Medical Directors Association in 1913. He was also a non-resident Fellow of the New York Academy of Medicine, and a member of other medical organizations. When he retired from medical practice in 1923, he devoted his whole time to life insurance work in which he had been previously partly engaged, serving as Medical Director of the Aetna Life Insurance Company from 1899 to 1933, having previously been connected for part time with the Connecticut Mutual Life Insurance Company. After his retirement from practice and life insurance work, he found much enjoyment in reading and sailing. He died from a heart attack at his summer home in Fenwick on August 12th, 1937.

Walter R. Steiner, M.D.

## • Quarto Notes •

### A HISTORY OF WOMEN IN MEDICINE FROM THE EARLIEST TIMES TO THE BEGINNING OF THE NINETEENTH CENTURY

by Kate Campbell Hurd-Mead, M.D.

569 Pages — \$6.00

Haddam, Conn. The Haddam Press 1938

Long active in Connecticut medical circles, the author in 1925 relinquished her practice to begin the writing of an historical treatise which has resulted in this first volume of *Women in Medicine*. The collecting of material, however, began in her undergraduate days, under the inspiration of her famous teachers: Osler, Welch, and Kelly. Her researches have carried her into many lands seeking information from authentic sources, and the result is the first of two volumes which will tell the story from earliest times down to the present.

In this volume the subject is carried from primitive medicine through the early Middle Ages to the twelfth century, and then by chapters covering each century to the beginning of the nineteenth. Chapter III deals particularly with the School of Salerno and places important emphasis upon Trotula and her work. The author's researches here are noteworthy and are witnessed by her previous publications on this subject. Dr. Mead, in this volume, has presented a fascinating study, well documented, finely illustrated, and very readable. With the completion of the work she will have the supreme satisfaction of having added an important contribution to our literature.

Herbert Thoms

## MANAGEMENT OF THE SICK INFANT AND CHILD

by Langley Porter

B.S., M.D., M.R.C.S., (Eng.), L.P.C.P. (Lond.)  
Dean, University of California Medical School  
and Professor of Medicine

and

William E. Carter, M.D.  
Director, University of California Hospital  
Out-Patient Department

Fifth Edition	874 Pages	\$10.00
St. Louis	C. V. Mosby Co.	1938

To those familiar with the previous edition of this work, two points of change are immediately manifest. (1) Title changed from "Management of the Sick Infant" to "Management of the Sick Infant and Child." The authors in their preface state: "We have thought that it would be of advantage in this edition to add some of the methods of management applicable to older children as well as to infants." Thus the title change. (2) Increase in physical proportions of the volume as to size and the addition of approximately one hundred and ten pages.

The book is divided into three parts containing eleven, twelve, and four chapters respectively. After devoting a brief chapter to the general considerations of the field the authors plunge into a detailed consideration of the major symptom classifications (i.e., vomiting, hemorrhage, fever, etc.) as met with in the field of pediatrics. The chapter on nutrition is particularly well written. Many writings on the subject of infant nutrition are clouded by an academic haziness offering, in the final analysis, little of value to the practitioner. This chapter, however, is clear and concise and offers many suggestions of practical application.

Part Two deals exclusively with disease of the various organ systems. A detailed description of each disease is not attempted. The mere mention of the disease with a few lines or a short paragraph to bring out the diagnostic features of the illness which leads up to a more detailed discussion of the treatment is all that is given. The authors are obviously trying to prevent having one fail to make a diagnosis for not having thought of the disease.

Part Three of four chapters is done with a nicety difficult to review adequately. The first chapter of this section has one hundred and fifty pages devoted exclusively to methods of diagnosis and treatment. It is profusely illustrated with photographs, drawings, and charts. To avoid excessive wording many of the descriptions are in outline form. The second chapter of this part is devoted to formulae and recipes in outline. The caloric value per unit of all milk and proprietary feedings with the method of preparing is given. The caloric value, for household units, of all foods in a pediatric dietary are interestingly charted. The chapter on drugs and prescriptions is extremely useful. Three pages on Sulfanilamide dosage and precautions are given. The book is concluded with a short chapter on drug poisoning. The drug is named in a left hand column while the treatment, in outline form, is directly opposite.

Throughout the book heavily printed or italicized words are used as a means of placing emphasis. A clear and usable index is appended. The fifth edition of this

work has been made into a volume of great value to the pediatrician or the medical practitioner interested in rendering more effective pediatric care.

F. P. Rogers



## ESSENTIALS OF OBSTETRICAL AND GYNECOLOGICAL PATHOLOGY WITH CLINICAL CORRELATION

by Marion Douglass, M.D., F.A.C.S.

Assistant Professor of Gynecology

Western Reserve University

and

Robert L. Faulkner, M.D.

Senior Clinical Instructor in Gynecology

Western Reserve University

187 Pages	148 illustrations	\$4.75
St. Louis	C. V. Mosby Co.	1938

All too few obstetricians and gynecologists of wide surgical experience have had the benefit of systematic training in pathology. This volume endeavors to supply the fundamentals in this gap and to serve as a starting point for further study. It is replete in excellent illustrations, well labelled, and supplemented with the bare essentials in text form. Eight chapters comprise the book, dealing with the vulva and vagina, the cervix, the endometrium, myoma uteri, endometriosis, the fallopian tube, the ovary, and pregnancy.

It would be difficult to find a volume of special pathology in American scientific literature simpler and more concise in the field which it covers. As the authors remind us, it is not a complete atlas of pictures nor an exhaustive discussion. To every one engaged in the field of obstetrics and gynecology this book should be a valuable reference.



## ALCOHOL — ONE MAN'S MEAT

by Edward A. Strecker, A.M., M.D., Sc.D.

Professor of Psychology

University of Pennsylvania School of Medicine,  
Philadelphia

and

Francis T. Chambers

Associate in Therapy Institute

Pennsylvania Hospital, Philadelphia

230 Pages - \$2.50

New York	MacMillan Company	1938
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This book offers a brief but excellent discussion of the "Alcoholic Problem" and since we, as physicians, at one time or another are in contact with the problem drinker, our approach to him and his family is of the utmost importance for it is to us that they look for a solution of his and their problem. It is not always possible, for financial and other reasons, to hospitalize the patient for treatment, both medical and psychiatric. Therefore, it would be well for every practitioner to have some idea of the psychiatric approach to the alcoholic. In this book lies considerable food for thought for our psychological approach and treatment.

The book is divided into three parts, as follows: First, "The Introduction" in which the authors bring the economic and social importance of alcohol in regard to the



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damage it may do through (a) loss of work or inefficiency of the alcoholic, (b) insurance rejections in younger people which are rising steadily, (c) fatal auto accidents, etc., (d) social damage in regard to the shock imposed on the alcoholic's family. Alcohol is a cause of mental disease and crime. These are but some of the inescapable consequences of alcohol and the authors rightfully feel should be brought to the public's eye as a means of preventive endeavor, plus a wider application of mental hygiene of childhood as a preventive measure. Childhood experiences are often the cause later for the adult to become an alcoholic. The authors also make a plea for the alcoholic, reminding us that he is as sick as the person with tuberculosis or pneumonia and since the making of an alcoholic is many times traceable to his childhood experience and not within his control, we should endeavor to aid in his readjustment and treat him as a sick man.

The second part of the book, "Psychology of Alcoholism", concerns itself with the identification of the alcoholic as one who drinks to escape some difficulty, being unable to face the realities of life, and whose adequate

adjustment to the realities of life is impossible as long as he drinks. The alcoholic is an introvert with a psychoneurotic nucleus. In succeeding chapters, the Psychoneurotic Nucleus is explained, also the Alcoholic Psychoneurosis, the Psychological Mechanisms in Abnormal Drinking, the Alcoholic Saturated Personality, Alcohol and Sex, and the Alcoholic Breakdown.

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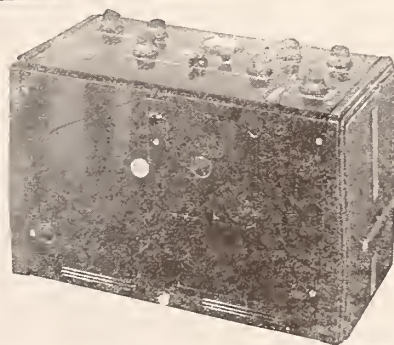
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## Subcutaneous Emphysema of Undetermined Origin: A Case Report

W. H. TURNLEY, M.D., Stamford, Conn.

D. S., a very energetic boy seven years of age was kept in bed because he was thought to have a cold. To amuse himself he used a metal tube twelve inches long, the size of a pencil, as a blow gun to shoot moist paper wads against the wall. In an heroic effort to make one of the pellets stick on a distant wall he blew extremely hard through the tube at which time he felt a sharp catch in his chest. Almost immediately he complained of difficult breathing and a sense of pressure in his chest. This was at eleven o'clock in the morning after having blown more than a hundred pellets through the gun. His temperature was normal but due to the increasingly labored breathing the family physician was called.

A thorough examination revealed nothing in the lungs but the boy looked as though he were in an extremely acute attack of asthma. An injection of adrenalin was given which had no effect. Later the pediatrician was called who also went over the boy's chest thoroughly but found nothing on percussion, palpation or auscultation. There was no evidence of a cold or sore throat and the temperature was still normal. Tonsils and adenoids had been removed two years previously. A half grain of codeine was given which made him more comfortable for about an hour.

At eight o'clock that night, nine hours after the sudden onset of symptoms, I was called to see him and the above history of the blow gun was obtained. The boy was sitting up in bed and still looked as though he were in an acute attack of asthma. He had not eaten anything all day as he said he felt he would choke if he tried to swallow. The temperature was still normal. His voice was slightly hoarse so an examination was made indirectly with a laryngeal mirror and the vocal cords, larynx and pharynx appeared normal. There was no evidence of trauma or bleeding. I was suspicious of an emphysematous condition and felt for crepitus over the chest, around the neck and clavicle but there was none. He was still laboring for breath so one-sixth grain of morphine sulphate was given to quiet him.

The following morning at nine o'clock a roentgenogram was taken of his chest. It was difficult to get a good one because the patient was so restless. He had extreme difficulty in breathing by then and an anxious expression of his face. At that time crepitus could be felt just above the clavicle and the neck looked definitely enlarged. He was placed in the hospital where the three of us examined him again at eleven o'clock, just twenty-four hours after the initial attack, and found crepitus all over his neck,

shoulder and axilla. From then on he began to show marked improvement and was able to breathe more freely and swallow some food. That afternoon he was comparatively quiet and by night there was no dyspnea though there was some emphysema. He was kept in bed at the hospital for two more days after which he was discharged free from all crepitus and apparently completely well. There had been no cyanosis at any time.

It is unfortunate that a roentgenogram could not have been taken immediately after the onset of symptoms. The report from the roentgenogram taken twenty-four hours after showed the pulmonary fields clear, except for a very slight amount of congestion around the upper portion of the right hilus. Aeration was equal on both sides, and there was slightly more than usual, suggesting a moderate degree of emphysema. The heart was placed a little more to the left than usual, but not sufficient for any clinical significance. There was no evidence of pneumothorax or atelectasis. No shadow of an opaque foreign body was seen. Shadows of gas were seen in the soft tissues above the clavicle, more marked on the left side, and extending to the superior border of the film (at the level of the sixth vertebra).

The question which makes this case interesting is the point at which the extravasation of air into the tissue occurred. If the air had passed through the visceral pleura there would have been a pneumothorax or collapse which does not seem to have occurred here. Numerous cases have been reported of traumatic and pathological lesions along the bronchial tree from the trachea to the alveoli; but spontaneous ruptures are not so common. So far as can be determined from a perusal of the literature, no cases of spontaneous rupture of the bronchi have been reported and only a few of the trachea. A rupture of the alveoli is to be expected when pressure by insufflation is increased beyond capacity. It does occur in animal experiments which have shown that the air is extravasated into the cellular tissue of the lung, spreads along the bronchi and vessels to the hilus and thence to the mediastinum and neck. Just what happened in this case is undecided.

# Problems for Resuscitation\*

HENRY S. RUTH, M.D., Philadelphia, Pa.

## Introduction

A scanning of the daily news will exhibit the increasing instances of the need for resuscitative measures. Man has created for himself additional dangers in many ways, in this progressively complicated world of today, by machines, drugs, and the harnessing of natural physical forces, all of his own contrivance. Knowledge of the means to revive him after exposure to such like, must keep pace with the mounting opportunities for their occurrence. The laity have fortunately been fairly well informed on some resuscitative measures through the agencies of several humanitarian societies and a number of the larger industrial organizations. When circumstances allow of a physician's presence, it is not sufficient for him to institute sub-dermal drug therapy, dramatically call for the popularized "iron lung", and, until its arrival, idly search for the radial pulse with an assumed, artistic expression of profound professional wisdom. In order to be able to institute corrective and combative measures effectively, he must possess a broad acquaintance with the nature and processes of the etiological factors present, the physiological disturbances involved, and certain mechanical features which may be present as well as the ability to rapidly utilize any facilities for resuscitation that are available, or to employ substitutional measures if they are absent. A similar speed of action is indicated with like clarity, but rarely elsewhere in the practice of medicine.

We have deliberately interpreted the scope of this presentation to include only the resuscitation indicated by the more common causes of *respiratory* cessation, and will deal quite lightly with the co-existent depressions of the cardiovascular system, which are initiated by and secondary to the suspension of respiratory activities.

The propriety of having this subject presented by a member of the medical fraternity dealing exclusively with anesthetic procedures is today unquestioned. It has been stated humorously

that the qualifications of the anesthetist in this direction have been provided by the necessity for frequent resuscitations of anesthetized individuals. There is more truth than caprice in this statement, for an anesthetist who is in charge at any large hospital where interns are trained in anesthesia, is called upon repeatedly to combat the effects of anesthetic overdose. In addition to these experiences, however, an anesthetist, in the current conception of the term, must possess an exhaustive knowledge of the physiological principles and mechanisms of gaseous interchange. This knowledge peculiarly equips the anesthetist to undertake most efficiently the indicated measures for restoration of respiration even though the cause of its cessation be quite distant from anesthetic agents and the operating room. Therefore, the problem of resuscitation should be placed in all instances under the direct and immediate supervision of the anesthetic staff of the hospital where that staff is manned by well-informed physicians.

## Etiological Factors of Respiratory Depression and Paralysis

These are numerous, for the more commonly occurring causations of depression or paralysis of active respiration may be brought about in many ways. The more important are as follows:

**Drowning.** Submersion in water may produce either one of two conditions, the presence of which is dependant upon the time involved. Only a small amount of water may be inspired, but it can function as a mechanical obstruction or plug to the entrance of air, when it is located in the pharynx, larynx and trachea. If inundation has continued for a long period of time, there may be a larger amount of water in the pulmonary system and its quantity may then act to decrease the capacity for gaseous interchange of the alveolar spaces themselves.

**Carbon Monoxide Poisoning.** This condition is an example of interference with the carriage of oxygen to the tissues by means of the formation of carboxyhemoglobin. It was formerly thought that this combination was perma-

\*From the Department of Anesthesia, Hahnemann Medical College & Hospital, Philadelphia, Pa.



ment, but it has now been shown that blood containing carbon monoxide will more rapidly eliminate the carbon monoxide when it is exposed to oxygen, than when it is exposed to air. This is in accordance with the law of mass action. In addition, both tidal and minute volumes are decreased. Therefore, an increase in pulmonary ventilation by corrective therapy is indicated if the subject is still breathing. Also, the presence of C O will markedly alter the shape and position of the oxygen-dissociation curve of the blood. This latter factor partly explains the serious condition of the patient having a 50% blood saturation with carbon monoxide, as compared to the but slightly handicapped individual with a hemoglobin reduced by half due to a secondary anemia.

**Smoke Poisoning** involves inspiration of the products of conflagration. These may be carbon monoxide, or can be fumes of a chemical nature which may produce inflammation of lung tissue. The resulting inflammation can be of such gross nature as to interfere with the absorption of oxygen.

**Acute Anterior Poliomyelitis.** Here the final common neurons are affected in the spinal cord, and successive groups of respiratory muscles cease functioning until finally apnea occurs. The central neurologic mechanism is not initially disturbed.

**Electric Shock** may be brought about by a stroke of lightning or by accidental contact with a high voltage wire. Three effects may be produced in this manner. There may be:

A. Cessation of respiration with no apparent impairment of heart action. The individual promptly becomes comatose, however, through anoxia of the brain.

B. The respiratory act and circulation cease at the same time. Cardiac ventricular fibrillation may be present; this may stop spontaneously, but no known measures are effective in restoring normal rhythm.

C. Respiration continues, but circulation is not demonstrable. Respiration will rapidly cease due to anoxia of the center. Type A yields the more promising prospects for success, although inactive despair should not rule when called on to treat the other types, because an error in determining the presence of circulation may have been committed.

**Drug Action.** An overdose of any depres-

sive drug may cause a depression of the respiratory center. Small doses may also produce a similar depression through the mechanism of allergy or idiosyncrasy; or, an edema of the glottis due to cutaneous and mucousal effects may produce a mechanical obstruction. The ingestion of these drugs may be accidental, or volitional with suicidal intent. A currently popular and pleasant course for self-extermination is the selection of one of the barbiturates for this purpose.

**Mechanical Suffocation** includes the presence of foreign bodies anywhere within the upper respiratory tract that are of sufficient size to obstruct respiration. Foreign bodies may be of many forms; chunks of meat, false teeth, vomited material, blood clots, tampons of cotton or gauze. Hanging, and other forms of strangulation are included also under this heading.

**Asphyxia Neonatorum** may be caused by any circumstance which depresses the respiratory center of the foetus; as for example, prolonged labor, instrumental delivery or the induction of an anesthesia of too profound depth in the mother. It may also be brought about by fluid or a foreign body in the respiratory tract of the foetus, pressure on the umbilical cord, or failure of the lung to expand. Space prohibits sufficient discourse upon this subject at this time; the excellent current literature is recommended.

#### Accidents in the Operating Room

The causes of paralysis of the vital process of respiration that may take place during surgical procedures are manifold. Prominent in this category are the toxic effects on the respiratory centre from an overdose of the anesthetic agent, the excessive use of carbon dioxide or other depressive drugs such as those employed for pre-anesthetic sedation, or a combination of these. Paralysis may be caused by an anoxia, developing from a severe hemorrhage, shock or the provision of an insufficient supply of oxygen. Toxemias and anaphalactic reactions, in conjunction with the effects of surgery, may bring about a necessity for resuscitation. The surgical procedure may be directly responsible. An extensive removal of tissue from about the trachea has frequently produced a tracheal collapse. Surgical opening of both pleural cavities will demand immediate artificial respiration; on the other hand, spontaneous respiration will continue if only one pleural cavity is open, but it should

be remembered that a small opening in one pleural cavity may cause more air to be drawn in to that cavity that can be expelled, with the resulting effect of compression and mediastinal shift. Surgical removal of the stellate ganglion or destruction of sinus caroticus nerves may be followed by failure of the respiratory center. Lesions of the neck which cause compression or deviation of the trachea may produce a complete obstruction to respiration when exposed to the muscular relaxation induced by the anesthetic. Adenomatous goitres are common examples of this latter condition. During operative procedures for lung abscess, and surgery in the presence of active tuberculous processes or bronchiectasis, the spreading of the exudate to the non-pathological lung may be so extensive as to constitute actual drowning. Unusual central depressive effects may occur through the improper use of local anesthetic agents or an idiosyncratic reaction to them by the patient. In addition to the depression, in the latter situation, generalized convulsive seizures may be initiated with a resultant further diminution of the total gaseous exchange.

#### Physiological Effects of Respiratory Cessation

Discontinuation of respiratory function will result in the immediate loss of oxygen intake. Metabolic forces, however, will continue in ever-decreasing degree until systemic death occurs. In this short interval, there will be a consequent, continuous reduction of the oxygen present in the body, manifested first by an anoxemia and secondly by an anoxia. The oxygen remaining in the body after cessation of respiration has been termed the "reserve oxygen". In quantity, this supply is quite meagre. It has been estimated at less than one liter, and is distributed in the lungs, in the blood stream and in the tissues. Asphyxia is said to occur at the stage at which tissue metabolism is disturbed from the oxygen lack. In addition to the progressive oxygen lack, carbon dioxide will be continuously produced with no avenue for escape. If the mechanism present is one of depression alone, the condition constitutes depressive or paralytic respiratory failure.<sup>2</sup> If the blood carbon dioxide tension becomes raised sufficiently to stimulate the respiratory center before its further depression through anoxia, the respirations will automatically resume. Such will not occur, however, if the pro-

duction of carbon dioxide is not sufficiently rapid to overtake the progressive anoxic depression of the center. In the condition known as asphyxial or dyspneic respiratory failure, the blood changes will also be anoxemic and hypercapneic in character. A third type, tachypneic respiratory failure, produces an anoxemia with an acarbica. However, in all types, the condition of anoxia usually remains progressive if untreated until the act of circulation has also ceased.

It has been demonstrated that nerve tissue metabolises oxygen more rapidly than any other tissue in the body. Therefore, the detrimental effects of oxygen depletion will be observed first on nerve tissue. After the heart has ceased contracting, the resulting complete anemia and anoxia of the brain may not be maintained for more than seven to ten minutes without irreparable destruction of central nerve tissue. Beyond this point all efforts toward resuscitation are usually fruitless.

It may readily be demonstrated from the above brief description of the physiological processes involved, that extreme speed toward institution of oxygen to the lungs is indicated. There will be a comparative further increase in the depression of the center through the mechanism of increasing anoxia for each interval of time that such measures have been delayed. Resuscitation calls not only for an oxygen supply to the lungs, but also within an interval of time that will allow the awakening of the respiratory centre to its responsibilities.

#### Treatment

A generalized plan of action is hereby presented, followed by first, additions to the main schema which may be indicated by the etiological factor, and secondly, by certain supportive measures. The steps in the treatment have been set forth in chronological order as follows:

1. All mechanical interference to the normal respiratory act or gaseous interchange must first be removed in order that resuscitative efforts may be successful. If a solid foreign body is present, this should speedily be removed if possible. If its removal cannot be accomplished, inflation of the lungs with oxygen should be attempted around the obstruction under moderate pressure, until tracheotomy can be performed or bronchoscopic removal of the body can be accomplished. Fluids in the upper respiratory



tract must immediately be aspirated. Such aspiration will be made more efficient if the first movement of the thorax is directed toward a forced expiration, and this be maintained for a moment. Fluids in the lower respiratory tract should be allowed to gravitate to the upper respiratory tract and then aspirated. The repaired patency of the airway must be made permanent. This can be accomplished by (1) the position of the head, (2) introduction of oropharyngeal or nasal pharyngeal airways, and (3) introduction of a large bore endotracheal tube. The latter is indisputably the most efficient. With such a tube in place, aspiration can be performed from the lower respiratory tract by means of a small catheter through the large one.

2. Having rapidly insured the patency of the airway of the patient, the second action will be that of supplying oxygen to the lungs without further delay. This may be accomplished by four methods, (a) mouth-to-mouth or mouth-to-nose insufflation, (b) manual methods, (c) mechanical methods under positive pressure, and (d) respirators, as exemplified by the negative pressure chambers. A brief description of these four methods follows:

(a) Mouth-to-Mouth or Mouth-to-Nose Insufflation should be instituted if there is any delay in arranging the patient in an advantageous position for manual methods. After removal of obstruction, the amount of interchange is under the direct control of the person instituting the insufflation. In addition, the carbon dioxide of the expired air insufflated will be efficacious toward prohibiting an acardia due to hyper-ventilation. However, transfer of infectious material, which may be present in the respiratory tract of the resuscitator, can be transferred to the patient. This fact should not deter one from its use when an emergency demands it.

(b) Manual Methods. Every physician should be familiar with these techniques as exemplified by the Shafer prone pressure, Silvester arm abducting, with or without pressure on the anterior chest, Nielson prone pressure, Eve rocking, and Thompson lifting methods. These constitute an alternative procedure to be immediately employed if the positive pressure methods are not instantly available. Their biggest advantage rests in the fact that they are constantly available and never should be omitted until such time as mechanical appliances

have been provided. With the manual methods it is not possible to reproduce any considerable respiratory enlargement of the thorax beyond the resting condition. All these methods rely chiefly upon compression of the thorax to a position of forced expiration; and allow an inflation to take place passively during the elastic recovery of the thorax to the position of expiratory rest. Thus, it may be seen that movement of the *reserve* air and not *tidal* air is induced. It has been thought that they have an advantage in that their effective application may aid in the return of venous blood to the heart through external pressure.

A few further remarks appear proper at this time with regard to several of these manual methods. When the dorsal position is required, there is a continued possibility that fluids, such as gastric contents, mucous or water will collect in the pharynx which, in the prone position, would gravitate from the oral cavity. A complete glottic occlusion may be caused by the flaccidity of the pharyngeal and laryngeal muscles, if the patency of the airway is not maintained. It is possible to fracture a rib, or rupture a viscous, particularly the liver of a child, by a too vigorous application of these methods. It is thought that traumatic results are most probable with the Shafer prone pressure method. All of the manual methods are difficult in heavy and obese individuals. It has been determined clinically, that the respiratory exchange is most efficient with the Silvester method, making pressure on the anterior chest wall,<sup>3</sup> although some physiologists do not concur.

(c) Mechanical Methods. These inflate the lungs or distend the thorax with positive internal pressure and then allow them to collapse naturally during expiration. The blood flow through the lungs is impeded and the arterial pressure will fall materially, if the pressure is too great or it is sustained. A too vigorous application will provide an excessive ventilation which in turn produces an acapnia and apnea. On the other hand, mechanical methods are apparently the most efficient means of maintaining alveolar ventilation.

Fortunately, the mechanical devices employing alternating positive and negative pressure are no longer employed. Negative pressure is harmful, for it may either collapse the lung or bring about a closure of the bronchi before removing alveolar gases.

The writer believes that the best method of supplying oxygen to the lungs is by means of an endotracheal catheter fitted with an inflatable balloon to its tracheal end. The presence of the balloon will offer increased efficiency by prohibiting leakage and also preventing distention of the stomach. The catheter is connected with a breathing bag of five to seven litre capacity which in turn is connected with a source of oxygen supply. The lungs are then inflated by gentle manual pressure on the breathing bag which is applied with the same rhythm and amplitude of normal respiratory function. Circulation will be aided by manual compression of the thorax during the expiratory phase. If carbon dioxide retention is not desired a to-and-fro carbon dioxide absorption canister is placed in the circuit between the catheter and the breathing bag. If carbon dioxide is to be administered, the canister is removed from the circuit and the bag inflated with the desired concentration. By working in relays with such an apparatus in place, artificial respiration can be continued for many hours. It possesses an added advantage in that all movements are under the direct control of the resuscitator, and that any efforts at spontaneous respiration will be immediately manifested.

(d) Respirators, such as the Drinker Negative Chamber Apparatus. These provide an alternating negative and positive pressure outside the body by placing it from the neck downward within a sealed chamber, which is connected with an electric pump. Respiratory function is maintained by alternating pressures as low as five to fifteen millimeters of water. These chambers should, in the writer's opinion, be reserved for those individuals in which resuscitation is required for periods of days or weeks.

3. Treatment of conditions produced by individual etiological factors:

(a) Presence of fluid in respiratory tract. Repeated aspirations must be performed. Trendelenberg position to establish gravitational drainage.

(b) Depressive volatile substances. With the catheter, canister, and bag method, the bag must be repeatedly emptied, and filled with fresh oxygen, in order to accomplish deletion of the substance.

(c) Toxic procaine convulsions, are best treated by intravenous injection of a soluble

barbiturate; either 10% solutions of sodium amytal (sodium isoamyl-ethyl barbiturate) or pentobarbital (sodium ethyl-methyl-butyl barbiturate), or a 5% solution of pentothal sodium. Just sufficient of these is given to control the convulsive contractions; a greater quantity will increase the central depression.

(d) Tightly fitting foreign bodies. While a tracheotomy is being performed, or preparatory to bronchoscopic removal, a combination of 80% Helium and 20% oxygen may facilitate the introduction of oxygen under slight pressure, around the obstacle.

4. Supportive Measures. External heat should be applied about the body, because a decrease in temperature will result from the reduction in vital processes. Circulation to the brain will be increased by Trendelenberg position. The general circulation will be aided by the alternating contraction and expansion of lung tissue produced by pulmonary inflation and external pressure upon the chest wall. Infusions of 5% glucose with or without epinephrine will further support a depressed circulation. The epinephrine may be introduced through the infusion tube by means of a fine-gauge needle, 2-3 minims of a 1-1000 solution at indicated intervals.

The subject of the use of carbon dioxide oxygen mixtures are controversial at the present time. While indicated in the presence of acardia, an excessive administration produces both an increase in the depression, and cardio-vascular disturbances. If a large experience has not been gained in the application of this gas, it should be employed in low concentrations, or, perhaps better, not at all.

Conflicting evidence has been reported on the use of analeptics or respiratory stimulants. Recent statements indicate that the untoward effects of therapeutic doses of the short-acting barbiturates may be relieved by metrazol and those of the longer-acting series by picrotoxin. Further investigation is in order.

### Summary

In this civilized world of today, man has more opportunities of being subjected to forces that produce a potentially fatal effect on the vital function of respiration. These arise through diversified etiological factors, each of which must be well understood in order to initiate treatment.

(Continued on Page 368)



## Syphilis In Pregnancy

JAMES RAGLAN MILLER, M.D., Hartford, Connecticut

Pregnant women are the sole intermediaries for the transmission of congenital syphilis. Experience has shown that adequate treatment during pregnancy will abolish congenital syphilis. It has been held until recently that syphilis is more easily cured during pregnancy than at any other time in the life of the woman. Certainly it is true that the Wassermann reaction may be rendered negative with less treatment than in the non-pregnant state. It does not follow however that such a patient is cured of her syphilis even though she be kept from giving birth to a syphilitic child. The more delicate serum tests of Kline, Hinton and others have shown that she still may carry a syphilitic infection and it has long been known that a pregnant woman with a negative Wassermann may give birth to a syphilitic child.

At no time in the woman's life however is she more amenable to thorough treatment than during pregnancy. Most women will take care of themselves better for the sake of the unborn child than they would at any other period of their lives and an excellent opportunity is therefore given a physician to undertake this prophylactic and curative therapy with her full cooperation.

In recent years it has become established that the danger of transmission of spirochetes to the foetus is first present in the fifth month of pregnancy. If effective anti-syphilitic treatment be begun not later than the third month and continued to the end of pregnancy, congenital syphilis can be abolished. It is well, however, to remember that a woman who is serologically negative at her first examination in pregnancy may become infected by her husband at a later date.

In an address before the New York Obstetrical Society on March 8, 1938, Dr. J. R. McCord, of Atlanta, whose experience covers over 3000 cases of syphilis in pregnancy, stated that although pregnant women stand anti-syphilitic treatment well there is a tendency to increase the incidence of late toxemias of pregnancy among those who are so treated. McCord therefore advises smaller dosage than in the non-pregnant state and that the plan should be to treat the pregnant syphilitic woman with a view to prevent infec-

tion of her foetus and not with a view to cure the mother. The mother can be cured by follow-up treatment after the termination of pregnancy.

Physicians are often faced with great difficulty in diagnosing syphilis in pregnancy. McCord states that the Wassermann reaction alone will fail to detect nearly one-quarter of the cases. The cord Wassermann when negative is also unreliable and the placental examination is also of little help. X-ray examination of the long bones of the foetus however is very dependable. Guerin's line may or may not be due to syphilis but the moth-eaten, saw-tooth, destructive lesion at the end of the long bone is pathognomonic. When autopsy material is obtainable from a stillbirth or even if a specimen of the cord be taken and stained by the silver method of Levaditi, spirochetes may be demonstrated. Experience with the more delicate serum tests may show a higher degree of diagnostic accuracy than we have had heretofore with the Wassermann reaction.

As with cancer one should never institute treatment without a definite diagnosis though immediate treatment is advised in a pregnant woman who has been exposed to a definitely infectious husband.

Unusual caution should be taken when treating pregnant women to detect early signs of sensitivity to arsenic. This may be over-looked in a busy clinic with routine treatment, but a single overdose of neoarsphenamine in the face of arsenical sensitivity may produce a virulent dermatitis so grave as to give rise to a staphylococcus sepsis or to liver toxemias late in pregnancy. Mercury and bismuth treatments should be given with extreme care, closely observing the patient for kidney damage. Examples of all these occurrences have been seen in this State and deaths have occurred from these causes.

When a woman has had one or more stillbirths, even in the face of a negative serological reaction in the case of herself and her husband, one should suspect syphilis as a cause and it is entirely justifiable to commence treatment not later than the third month in subsequent pregnancy as a therapeutic test.

# Presidents' Proscenium

## Things That Are or Should Be\*

H. K. SPEED, M.D., Sayre, Oklahoma

During the 30 years I have been attending Medical Associations it has been almost unanimously the custom of the incoming President to inaugurate in his address a somewhat detailed history of medicine, but if that is what you expect from me, I am going to disappoint you, for I am going to talk about some of the things that are and that I hope will be.

Please be informed that my remarks are not necessarily the ideas or the wishes of Organized Medicine in Oklahoma, for I am sure that many will disagree with me, because they are essentially my own ideas. I believe that we should at this meeting appoint a Censure Committee to see that each incoming president says the right thing or things that seem right to the profession in general, as passed upon by this representative group of co-workers.

1. I believe that we should through some central head promote in so far as possible a harmony of purpose of all the members of the Association. Doctors being natural leaders have many individual ideas and will not be easily lead, but by an all time active well balanced man the general views of the entire profession, if approached correctly, can be carried out.

2. It is my very sincere desire that we clean our own house, not by wide spread punishment of any person or group of people, but many of us know people in the profession that are a discredit to our profession. Why should these not be eliminated?

3. We should promote Post-Graduate extension work enthusiastically, and in the future, perhaps at the next legislature, make it the duty of the Examining Board to qualify each man's license in so far as the applicant shall be required

to take so much Clinical or Post-Graduate work every so many years, to be designated by a wise and well selected committee, composed of members of Organized Medicine.

4. Our members should be encouraged to use and our druggists be directed to buy only council accepted pharmaceuticals and appliances, and each doctor or druggist have on his desk a list of these things. If this were done there would not be a repetition of the calamitous misfortune some months back, when more than 100 lives were lost, also the Florida incident of late March of this year, wherein ten lives were lost, which should and did discredit every doctor and pharmaceutical house in America. Why should we set up a Council on Pharmacy and Chemistry and maintain it at an enormous cost and at the same time buy from some fly-by-night company that can sell cheaper products, because they do not go to the expense of maintaining an expensive research laboratory?

5. There should be some manner of compensating the average doctor for services rendered the indigent; namely, city, county, state or federal government, for I believe they are the charges of all the people, as they have so increased in numbers that it is no longer possible for the individual physician to give adequate care to all of them, as it has been in the past.

6. Unlimited birth control information should be disseminated by the doctor individually at his discretion and not through a Birth Control Clinic, which usually drifts into the hands of an incompetent Social Service worker.

The health and lives of 700,000 women are jeopardized each year, and 41% of the puerperal deaths each year are caused by criminal abortions.

\*President's Address before Oklahoma State Medical Association, Annual Meeting, Muskogee, May 9, 10, 11, 1938.



7. There should be compulsory pre-employment physical examination for all employees of labor, with subsequent periodical physical examinations.

8. I believe we should sponsor a law whereby all Life Insurance companies must have all applicants medically examined and discourage all people from buying non-medical policies.

9. Physical examinations, including tests for gonorrhea, syphilis and tuberculosis for all dispensers of food and food handlers should be required semi-annually or annually as now incorporated in the Barber Practice Act.

10. I believe there should be a health certificate for both man and woman before entering marriage, and this certificate to be issued by some disinterested medical authority, not the family physician.

11. We should sponsor a law to be enacted, whereby all owners of cars or trucks driven within the state must carry enough insurance to pay all just doctor bills or hospitalization for any person or persons injured by such car.

12. There should be some form of Hospital Pre-payment insurance, to be worked out between the Medical Profession and the hospital authorities, which must not include anesthetics, X-rays, laboratory work or any other medical or surgical service, but hospitalization alone.

13. I request that each County Medical Society co-operate to the fullest extent with the state and county health boards in their most excellent and worth while undertakings, but that any all time or part time health unit be discouraged or barred from practicing medicine, in so far as treatment of disease is concerned. They should confine their activities to educational information regarding sanitation and hygiene, prenatal and postpartum visits by the public health nurse, administration of the tuberculin test and the Schick test, but at all time direct the reactors in these cases to report to their family physician for treatment. I am especially opposed to the setting up of free venereal clinics, but believe that these diseases too should be taken care of by the various doctors individually

as has been done in the past.

14. I recommend the enactment of a law authorizing a State Health Board, composed of nine members, one retiring each year, the majority of whom must at all times be physicians. This health board is to employ and supervise the activities of the state health officer and to serve without pay, except per diem expenses

15. *Politics.* I am pleased to encourage all men in Organized Medicine to become politically minded, if they have not already done so, for we are in politics from now on whether we like it or not.

I especially would like to encourage doctors and their sons, when convenient to present themselves as candidates for the house and senate, for from personal experience, I can assure you that it is a lot of comfort to the legislative committee to have a doctor or a doctor's son in either of these law making bodies.

I think it is our duty to demand of the legislature a place in the Legislative Sun and see that they give us laws to protect the general public and our own profession as well. One of these laws I recommended, known as the Registration Law, was passed in the last senate and killed in the house, by a shrewd and designing politician, with no reason at all, except selfish political purposes, as it affected no one except our profession.

Also I would recommend some few changes in the Basic Science Law, passed in the last legislature. I think it is a good law but can be improved by minor changes. Also some two or three sections of the Medical Practice Act should have changes, which will work for the benefit of all the people, including the Medical Profession. Especially should it be amended to bar the advertising quack and unscrupulous qualified members of our profession.

16. I believe we should pass a resolution asking congress through both of our senators and various representatives, that the president's cabinet be given a doctor member to supervise and control by co-ordination all of the 12 or more departments of our government that are handling medical matters.

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

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**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

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**REPRINTS.**— Reprints of papers and obituaries may be obtained from the Editor at cost.

## • Editorials •

### THE NEW FEDERAL FOOD, DRUG AND COSMETIC ACT

To point out in detail wherein our new Federal Food, Drug and Cosmetic Act is an improvement over the old Act of 1906 and wherein it falls short would be too great a task for these columns. A few of the outstanding changes made possible by this new legislation are of sufficient importance to be enumerated. The new law strengthens and extends the fundamental purposes of the old law by making more positive requirements in the interest of public welfare. It also adds to the commodities controlled, cosmetics, therapeutic devices and certain drug preparations which were not subject to regulation under the old law. A more effective control of poisonous or deleterious ingredients in food, emergency permit control in disease outbreaks due to contaminated food, informative labelling of food products for infant and invalid feeding, prohibition of injurious cosmetics, control of therapeutic devices, prohibition of traffic in drugs dangerous to health under conditions of use as labelled, prohibition of the introduction of new drugs until passed upon by the Secretary of Agriculture, warning labelling of habit forming drugs, banning of traffic in patent medicines when bearing false labels whether or not intentionally made to deceive, labelling of ingredients of drugs other than those recognized in the Pharmacopoeias or National Formulary, and finally prohibition of traffic in drugs and devices as well as in food prepared or handled under unsanitary conditions,— all these are embodied in the new law. There are several provisions in the new law to prevent deception or cheats.

Objections to the new act by the consumer have been raised. Multiple seizures of products in violation of the law are now curtailed but not to such a degree as was called for in the original bill which passed the House. There is not adequate protection even now against dangerous drugs. Canned goods are not required to be properly labelled as to standards of quality. The provisions regarding penalties for violations, publicity, and criminal proceedings are inadequate.



The measure as passed contains a court review section under which enforcement operations will be nullified. This review will be before the Circuit Court of Appeal, which are 3-judge courts, and should result in a quicker determination of the issue and hence an earlier public protection.

The general provisions of the law become effective June 25, 1939. Provisions relating to drugs which are dangerous to health when taken in accordance with label instructions, new drugs which have not been subjected to adequate tests for safety, and cosmetics which may be injurious to the user are already effective. Perhaps the greatest weakness in the new law lies in its application to patent medicines. Penalties are provided for after the offense of manufacturing and selling medicines bearing label claims of therapeutic effect has taken place but there is no provision for controlling the patent medicine evil such as could be established by a system of license control. The ramifications of the patent medicine evil are not fully appreciated by the public today.



#### THE A. M. A. MEETING at SAN FRANCISCO

Widely publicized statements made by so-called leaders of medical science, social reformers and welfare politicians would lead one to expect a veritable cloudburst of parental wrath at the recent annual meeting of the A. M. A. in San Francisco. Instead the necessary business was transacted with dignity and precision. To be able to refute the estimates of widespread inadequacy of medical care it seemed imperative that more accurate data be obtained. Hence the nationwide survey of the actual supply of medical care.

It is expected by this survey that not only a great variety of valuable data related to medical care will be obtained but many by-products of importance as well. The geographical distribution of medical service, the type of community, the social status of the patient involved, where and how our public officials and institutions fall short — all these and more should come to light.

Not all the state organizations have embarked upon the survey as outlined by the American Medical Association. Some have balked at the expense, others at the seeming inaccuracy of the results. The expense, it is promised us, will not be great; accuracy can never be obtained in such a survey but estimated returns, if carefully made, have heretofore proven of value. It is primarily a survey of the practitioners of this country themselves.

The reference committee to whom was referred a resolution concerning the movie film, "The Birth of a Baby", expressed itself as believing that the question of showing the film was a problem of the various state societies and their component county associations and should be handled by these organizations.

A resolution setting forth certain approved standards for unlimited license and certain other approved standards for limited license for operating motor vehicles was passed by the House of Delegates. These standards emanated from the Section on Ophthalmology.

The Connecticut delegates as instructed by the State Society presented recommendations that the House of Delegates of the American Medical Association establish a council composed of individuals especially qualified to deal with the problems of medical care, to be known as the Council on Medical Care, and urge each state medical association to appoint a committee on medical care to cooperate with the Council on Medical Care of the A. M. A. and suggest that each county medical society also appoint a committee on medical care. The Board of Trustees reported that these recommendations are part of the plan originated some months ago and now in process of becoming effective. The new Council on Medical Care must await the working out of this plan before functioning.

The public and the press looked for dissention in the ranks of organized medicine. Instead the outlook for accomplishment of real results is even more hopeful than ever. With the intelligent leadership supplied by a new group of officers, organized medicine should take the initiative and maintain it through another year.

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### CHILDS FUND CANCER RESEARCH PROGRAM

On June 18 the Director of the Board of Scientific Advisors of the Childs Fund issued a statement outlining the grants for investigations for the next three years from the Fund. During the first period the major portion is allocated for work at Yale. There is also a grant to the American Journal of Cancer of \$1,000 per year for five years, to Washington University School of Medicine of \$2,000 per year for two years, to Johns Hopkins University School of Medicine of \$2,000 for one year, to Cornell University Medical College of \$4,500 for one year, and to the Research Institute of the Royal Cancer Hospital, London, of \$1,000 for one year.

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### DR. STEINER AGAIN HONORED

Dr. Walter R. Steiner of Hartford, past president of the State Medical Society, was elected president of the American Association of the History of Medicine at its annual meeting May 2. This is indeed an honor and Dr. Steiner's interest in medical history renders him all the more deserving.

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### GRADUATE MEDICAL EDUCATION IN CONNECTICUT

A progress report of the field study on graduate medical education in Connecticut is written up in the Journal of the American Medical Association for June 18, 1938. It consists of a brief history of the origin of the Clinical Congress and an outline of the details of the Congress as it is now in operation. Opportunities for post-graduate study at Yale University School of Medicine are enumerated and the courses in obstetrics and pediatrics given in conjunction with the State Department of Health under the provisions of the Social Security Act are outlined.

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### NEW BUILDING FOR ARMY MEDICAL LIBRARY AND MUSEUM

A bill authorizing a new building for the Army Medical Library and Museum in Washington, D. C., recently was passed by Congress. The

library, frequently called the Surgeon General's Library, is the largest medical library in the world, containing nearly 500,000 volumes. The present building housing both the library and the museum was erected fifty years ago, is a small red brick building on an inaccessible site, is not fireproof, is entirely inadequate to its needs and is decidedly incongruous with other public buildings. The library was conceived by Surgeon General Lovell in 1836 and through interest of successive surgeon generals has become the largest medical library in the world. In the same building is the Army Medical Museum, established by the Medical Department of the Army in 1863 and now the largest museum of human pathology in the United States.

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### THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

The National Foundation for Infantile Paralysis on June 21 issued a general statement of plans and appointment of committees. The General Advisory Committee comprises the following physicians: Irvin Abell, Louisville, Ky., Philip Lewin, Chicago, Ill., Thomas Parran, Washington, D. C., Max M. Peet, Ann Arbor, Mich., and Thomas M. Rivers, New York City.

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### PROBLEMS FOR RESUSCITATION

(Continued from Page 362)

A knowledge of the physiological processes associated with respiratory cessation is a prerequisite to the execution of resuscitation. A chronological brief of restorative measures is presented from a practical clinical view-point. Controversial and experimental data are not enlarged upon.

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# From the Secretary's Office

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## Important Council Meeting Survey of Medical Practice to be Made

The Council held its mid-summer meeting in Norwich on July 14th at the residence of Dr. George H. Gildersleeve, the Councilor from New London County, and later dined at Uncas-on-Thames, as the guest of the President, Dr. Hugh B. Campell.

The recommendation of the Committee of Twenty, providing for the appropriation of \$12,000 to be raised by special assessment that was made by the Committee of Twenty to the House of Delegates at its meeting on June 1st and referred to the Council for consideration, was disapproved. Since that recommendation had been made by the Committee of Twenty, the survey of medical practice throughout the country according to a plan established by the American Medical Association, has received wide acceptance, and the Council voted that The Connecticut State Medical Society should participate in that study. This choice is a wise one in that the results that are obtained from the survey in this State will be integrated with the data obtained elsewhere in the nation to complete the picture of medical service for the country as a whole. It is probably the most extensive study of medical practice that has ever been made in the world.

There will be a special committee of five appointed by the Council to organize and carry out this survey, and a temporary full time organization will be set up under the direction of the Executive Secretary, through whose office the study will be made. It is hoped that the project will be started immediately after the vacation season. An appropriation of \$2,000 from funds

of the Society was made to finance the survey, and it will not be necessary to have a special assessment.

Frequently, during the past few years, studies of the distribution and costs of medical care have been made by many agencies. This nation-wide survey in which we are to participate, is the first attempt to find out the valuable observations and conclusions of the physicians themselves. The study is based upon no idealistic generalization or theoretic reforms, but is a thorough-going attempt to arrive at the facts in the situation. Connecticut is a small and closely integrated State, and our opportunity for making an accurate and informative survey is excellent, but the success of the project depends solely upon the cooperation of our members.

## Committee to Study Medical Practice Act

In compliance with a vote of the House of Delegates, at its Annual Meeting in June, the Council appointed the following Committee to study and, if necessary, recommend a revision of the Medical Practice Act of the State of Connecticut: Chairman, Charles J. Bartlett; Secretary, Thomas P. Murdock; Daniel C. Patterson, John C. Rowley, George M. Smith.

## Committee on Industrial Health

The Council authorized the appointment of a Committee on Industrial Health to cooperate with the newly organized Council on Industrial Health of the American Medical Association. The function of this Committee will be to consider health problems as they arise in industry. The personnel of this Committee will be announced later.

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## SECTION ON Orthopedic Surgery

### Exercises for Post-Operative Patients

Dr. Campeanu of the University of Bucharest, an eminent general surgeon of Rumania, believes in putting his surgical patients on their feet. He actually does so directly from the operating table. His patients frequently dress themselves immediately after the operation and are escorted to the ward walking up or down stairs or may even go directly to the hospital grounds where they sit in the park. He thus begins gymnastics and exercises immediately following the operation. This technique has been developed to a large extent in Swedish hospitals where every surgical patient, unless there are contraindications, is given exercises by a gymnast following operation. These exercises are increased in extent until the patient is up and able to go home. This procedure is based upon the assumption that such complications as pulmonary congestion or thrombo-phlebitis can, in this manner, be prevented. Dr. Campeanu reports an assistant who had his appendix removed. The assistant then stepped down from the operating table and forthwith acted as an assistant at the next operation. His recovery was prompt.

Early exercising in most post-operative cases cannot help but bring about an earlier convalescence. Why should not the orthopedic services in our hospitals take over such an idea and develop a physio-therapist who might undertake this additional procedure. Special exercises to fit the individual patient could easily be arranged and directed by such a physio-therapist.

### Commission for Study of Crippled Children

Mayor F. H. LaGuardia of New York City has ordered a survey to determine the effectiveness of

the care accorded to physically handicapped children in New York City. This commission will coordinate the facilities available in public, semi-public and private agencies. The director is Dr. D. W. Lippard, a pediatrician, who will have \$35,000 with which to command this investigation. From the reports, this department will come under the Department of Health. All crippled children will be registered and their treatment studied. The commission announced that the latest report showed that less than 25% of crippled children in the metropolis of New York were known to be under medical care.

### Sterilization of Congenitally Deformed—Germany

From the standpoint of production of congenital deformities, the revised Nazi conception of hereditary transmission of disease comes as a surprise. Heretofore the German government has advocated sterilization of siblings of the affected persons. The revision holds that only those siblings who also show congenital deformities should be sterilized.

### Fracture Symposium — Clinical Congress

Methods of Fracture Treatment advocated for fracture surgeons will be presented by members of The Section under the guidance of Dr. Merrill K. Lindsay. The Connecticut Fracture Committee of the American College of Surgeons will be drawn upon for additional support in presenting this most timely course of lectures. There will be some clinical material for demonstration which, together with the lantern slides and motion pictures used in the demonstrations, should be particularly worth while. A portion of each lecture will be devoted to a panel discussion. Don't forget the dates, September 20, 21 and 22 — 2 to 4 P.M. Hall or lecture room to be announced later.

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# 146th Annual Meeting

## Proceedings - House of Delegates

The first session of the House of Delegates of the Connecticut State Medical Society convened in the auditorium of the New Haven Medical Society at 10:30 A.M., on May 25, 1938, Dr. Charles H. Turkington, President of the Society, presiding.

### REPORT OF THE PRESIDENT

Gentlemen of the House of Delegates:

To have been your president this past year has been not only a great honor but a great privilege. For this honor I again wish to express my thanks to the Society through its House of Delegates.

In reviewing this past year, I am not unmindful of my own shortcomings and am quite conscious of the fact that I have received more than I have given.

Presidents, in their annual reports, always refer to their visits to the County Associations. I now know why they do this. It is not only a duty but one that affords much pleasure. I have visited all the County Associations once, some twice. I have been impressed with the large attendance at these meetings, and the interest shown in all the affairs of the Society. Without exception the scientific programs have been of an high order and very instructive.

This past year has not been, as you know, one of calm. The so-called "Principles and Proposals" have disturbed our serenity somewhat, I am happy to report our Society kept its feet on the ground, and I believe now we all see the wisdom of this. The large amount of agitation has served at least to increase our interest in the great problem of adequate medical care and I feel sure renewed efforts to solve the problem will follow.

We have enjoyed the more frequent publication of our own Journal since the first of the year. The Journal is contributing much to the advancement of our Society and bringing our members into a closer relationship.

It is gratifying to see the willingness of members to serve on committees and the faithfulness with which they perform their duties. To all these I wish to extend my thanks.

I wish to express my appreciation and thanks to the Officers and Councilors who have made my duties easier and pleasant. Without this great spirit of co-operation on the part of all, this Society could not retain the position of influence it now enjoys.

To review the many activities carried on this past year would be only a repetition of what the Chairman of the Council, the Administrative Secretary and Committee Chairmen will report. I shall spare you, so that we may proceed without further delay with the large amount of business before us.

Respectfully submitted,

CHARLES H. TURKINGTON.

### REPORT OF THE CHAIRMAN OF THE COUNCIL

Mr. President and Members of the House of Delegates:

The Council met at the Hotel Stratfield, Bridgeport, May 20, 1937 for organization. Dr. Gold was elected Chairman of the Council for the ensuing year.

The Council has held monthly meetings during this past year. A great many problems have been presented for discussion and decisions. In this report I have selected the high points to bring to your attention some of the decisions which the Council is called on to make.

The Council voted that the Treasurer be authorized to pay from the O. C. Smith Fund dues for the fiscal year 1938 of any indigent member who may be recommended by the Councilors of the component county medical associations.

It was voted that the Council and House of Delegates meet on May 25, 1938 in New Haven, and the adjourned meeting of the Society be held in New London on June 1-2, 1938.

The Secretary and Treasurer of The Connecticut State Medical Society are appointed a Committee to Revise the By-Laws and they have the privilege of selecting the other members of the Committee.

A Committee of Three was appointed to meet with the State Hospital Association, and the Secretary was directed to inform the State Hospital Association that this Committee had been named.

The Tumor Committee asked to have lay members added to their group who could direct the study of the incidence of cancer in the State and later suggest what should be done to combat it. The lay members of the Tumor Committee are: Professor Ira V. Hiscock, New Haven, Mr. Herbert F. Hirsche, Hartford, and Mrs. Doris H. McBee, South Willington.

The report from the Committee on Medical Expert Testimony given at the last meeting of the House of Delegates was, at their request, returned to them for revision according to their best judgment.

It was decided that notices should be sent to the State Committees notifying them that no expenses should be incurred until the Council has reviewed them.

The November meeting of the Council was held at the Connecticut State Hospital, Middletown, as the guests of Dr. Roy L. Leak, Superintendent. Dr. Leak took the Council on a tour of inspection of a few of the wards in the old main building, and the crowded conditions of the institution were forcibly brought to our attention, making it very evident that this State institution needs many additions for the proper and satisfactory care of the insane.

The Old Age Assistance Bureau of the State asked the State Society to cooperate with them and the State Welfare Commission in outlining proper ethical plans for a program for the education and rehabilitation of the indigent blind. This Bureau asked that names of severa

ophthalmologists be submitted to them, and from that list several members of the Society would be chosen to examine applicants for this assistance. A list of ophthalmologists who had received their special Board certificates was sent to them for their convenience.

The Council approved of the Committee on Public Health's recommendation that the maternal and child welfare nursing service in Windham be continued.

The Council met at the Graduates Club to receive the Special Committee's report on the inquiry into the Principles and Proposals submitted by the Committee of Physicians.

The convening of a special meeting of the House of Delegates before sufficient time has elapsed for the Committee to complete its study, changes the position of the Special Committee of the Council that was appointed to inquire into the Principles and Proposals. This Committee recommends that the Council maintain an unbiased, open-mindedness and welcome the opportunity to hear free discussion on the problem by the House of Delegates.

The State Hospital Committee was asked specifically by the Connecticut Hospital Association:

1. Is it the opinion of the Committee that all the professional services should be excluded from the prepayment hospital service plan?

2. If so, does this exclude also the technical and overhead costs of such services, or only the physicians services?

3. Is it the opinion of the Committee that in connection with excluded professional services, the hospitals and physicians involved have the right to make such arrangements for remuneration to the physicians and to charge the patients as they see fit, providing that some charge is made and that there is no attempt on the part of the hospital to make a profit from the physicians' services? After some discussion, the Committee reported as follows:

1. It is the opinion of this Committee that all professional services except those rendered by a resident house staff should be excluded from a prepayment hospital service plan.

2. It is the opinion of the Committee that physicians' services only should be excluded.

3. The answer to this question is yes.

It was voted that the expenses of speakers invited to appear before various sections of the Society would not be paid from the Society's treasury unless the speaker had been invited by the Society's Program Committee to address a general meeting of the Society.

Dr. Barker was asked by the Council to write to Dr. Fred L. Adair, General Manager of the American Congress of Obstetrics and Gynecology, and inform him that the film, "Birth of A Baby," had been shown in this State, but that we were not yet ready to give our approval to a general showing.

It was voted by the Council that the apportionment of delegates for the House of Delegates be based upon paid up membership in the County Associations as of December 31. The Secretary was instructed to notify the County Secretaries of this action.

It was voted that the calendar year be the fiscal year of the Society and that the county associations have the same fiscal year; that the State tax should be remitted monthly as collected; that on the 31st of December the

roster should be a roster of those who have paid their taxes, those who have had their taxes paid for them and the County Secretaries; that in order to be included in the roster the men must be alive at that time; this roster should constitute the basis of delegate strength for the annual meeting.

It was voted that The Connecticut State Medical Society continue its participation in the publication of the Medical Directory of the States of New York, New Jersey and Connecticut.

The resolutions received from the Eye, Ear, Nose and Throat Section were discussed and the final vote was that they be referred to the Committee on Public Policy and Legislation for consideration, and the Secretary was instructed to convey this information to Dr. Little.

The following officers were nominated for the year 1938-1939:

For President-Elect:

Joseph L. Linde, New Haven.

For 1st Vice-President:

James D. McGaughey, Wallingford.

For 2nd Vice-President:

Karl T. Phillips, Putnam.

For Executive Secretary:

\*Creighton Barker, New Haven.

For Legislative Secretary:

Creighton Barker, New Haven.

For Secretary on Scientific Work and Editor of the JOURNAL:

\*Stanley B. Weld, Hartford.

For Treasurer:

\*James R. Miller, Hartford.

For the Program Committee (providing the House of Delegates adopts the Amendment to Chapter VIII of a new Section 2):

G. Gardiner Russell, Hartford, Chairman 3 years

A. Novell Creadick, New Haven 2 years

Daniel C. Patterson, Bridgeport 1 year

For the Committee on Public Policy and Legislation:

Fairfield County, Berkley M. Parmelee, Bridgeport.

Hartford County, \*Arthur B. Landry, Hartford.

Litchfield County, \*Harry B. Hanchett, Torrington.

Middlesex County, \*William M. Joyce, Middletown.

New Haven County, \*David R. Lyman, Wallingford.

New London County, C. John Satti, New London.

Tolland County, \*William L. Higgins, South Coventry

Windham County, \*Joseph A. Girouard, Willimantic.

President, Hugh B. Campbell, Norwich.

Executive Secretary } Creighton Barker, New  
Legislative Secretary } Haven, Chairman.

George Blumer } Committee on

Walter R. Steiner } National Legislation.

For the Committee on Medical Examination and Medical Education:

One member for a term of five years, to begin January 1, 1939.

\*Thomas P. Murdock, Meriden.

So that the Committee will consist of:

1934 Daniel C. Patterson, Bridgeport.

1935 George M. Smith, Branford.

1936 John C. Rowley, Hartford.

1937 Charles J. Bartlett, New Haven (President)



- 1938 Thomas P. Murdock, Meriden (Secretary)
- For the Committee on Honorary Members and Degrees:
- 1936 \*Thomas P. Murdock, Meriden.
- 1937 \*Daniel C. Patterson, Bridgeport.
- 1938 Charles H. Turkington, Litchfield.
- For the Committee on National Legislation:
- \*George Blumer, New Haven.
- \*Walter R. Steiner, Hartford.
- The Legislative Secretary.
- For the Committee on Hospitals:
- Two members for a term of three years:
- \*Edward J. Ottenheimer, Willimantic.
- \*Harold W. Wellington, New London.
- and to be chairman, H. Bertram Lambert, Bridgeport,
- so that the Committee will consist of:
- 1936 Harry B. Hanchett, Torrington.
- 1936 Wilmar M. Allen, Hartford.
- 1937 Frederick N. Sperry, New Haven.
- 1937 H. Bertram Lambert, Bridgeport.
- 1938 Edward J. Ottenheimer, Willimantic.
- 1938 Harold W. Wellington, New London.
- For the Committee on Public Health:
- \*Joseph H. Howard, Bridgeport, Chairman.
- Donald A. Bristoll, New Britain.
- Luther K. Musselman, New Haven.
- \*Howard W. Brayton, Hartford.
- J. Harold Root, Waterbury.
- \*Oliver L. Stringfield, Stamford.
- Maurice J. Strauss, New Haven.
- Robert M. Yergason, Hartford.
- Francis A. Sutherland, Torrington.
- Robert R. Agnew, Norwich.
- Howard S. Colwell, New Haven.
- Jessie Fisher, Middletown.
- For the Committee on the Clinical Congress:
- For the term October 1, 1938 to September 30, 1939:
- To continue the present Committee, so that the Committee shall consist of:
- Stanhope Bayne-Jones, New Haven, Chairman.
- Herbert Thoms, New Haven, Secretary.
- Charles E. Sanford, New Haven, Treasurer.
- President of the Society.
- Chairman of the Council.
- Executive Secretary of the Society.
- Secretary on Scientific Work.
- Eight Secretaries of Component County Medical Associations.
- Such other members as the Committee shall appoint:
- For the Committee on Tumor Study:
- \*Charles L. Larkin, Waterbury, Chairman.
- \*Ashley W. Oughterson, New Haven.
- \*Ralph E. Kendall, Hartford.
- \*Philip G. McLellan, Hartford.
- \*H. LeBaron Peters, Bridgeport.
- \*Milton C. Winternitz, New Haven.
- \*W. Bradford Walker, Cornwall.
- \*The State Commissioner of Health.
- Louis P. Hastings, Hartford.
- Joseph H. Howard, Bridgeport.
- Maurice Moore, Norwich.
- William F. Verdi, New Haven.
- Christopher J. McCormack, Hartford.
- For the Committee on Narcotic Drug Addiction:
- \*Arthur B. Dayton, New Haven, Chairman.
- \*John H. Foster, Waterbury.
- \*Alfred Labensky, New London.
- Chester Waterman, Norwich.
- For the State Committee on Workmen's Compensation and the five District Committees:
- To continue the present Committees, except for the substitution of Harry S. Frank, Middletown, and John G. Raymer, Norwich, for F. Erwin Tracey, Durham, and Lewis Sears, Norwich, in the Second District Committee, so that the Committee shall consist of:
- The Council.
- The Chairman of the five District Committees.
- First District Committee:
- George W. Dunn, New Britain, Chairman.
- Benedict B. Landry, Hartford.
- D. C. Y. Moore, South Manchester.
- Benedict N. Whipple, Bristol.
- Thacher W. Worthen, Hartford.
- Second District Committee:
- Joseph A. Girouard, Willimantic, Chairman.
- John P. Hanley, Stafford Springs.
- John G. Raymer, Norwich.
- Harry S. Frank, Middletown.
- Harold W. Wellington, New London.
- Third District Committee:
- Francis H. Reilly, New Haven, Chairman.
- Frederick W. Roberts, New Haven.
- Edward W. Foster, Meriden.
- James D. McGaughey, Wallingford.
- Paul W. Vestal, New Haven.
- Fourth District Committee:
- D. Chester Brown, Danbury, Chairman.
- Daniel C. Patterson, Bridgeport.
- J. Howard Staub, Stamford.
- Edward J. Tracey, Norwalk.
- J. Leonard Vickers, Greenwich.
- Fifth District Committee:
- Michael J. Lawlor, Waterbury, Chairman.
- Harry B. Hanchett, Torrington.
- Edward H. Kirschbaum, Waterbury.
- Maurice J. Reidy, Winsted.
- Samuel B. Rentsch, Derby.
- For the Committee on Public Relations:
- (Provided the House of Delegates adopts the recommendation of the Council amending the By-Laws by adding a new Section 7 to Chapter VIII):
- Stuart H. Bowman, Stamford, Fairfield County, Chairman.
- Harry L. F. Locke, Hartford, Hartford County.
- Edwin G. Reade, Watertown, Litchfield County.
- Ella Wilder, Middletown, Middlesex County.
- Michael J. Lawlor, Waterbury, New Haven County.
- Edmund L. Douglass, Groton, New London County.
- Elliott H. Metcalf, Rockville, Tolland County.
- Ralph L. Gilman, Storrs, Windham County.
- For Delegate to the American Medical Association for the term of two years, July 1, 1938 to June 30, 1940:
- \*Walter R. Steiner, Hartford.
- For Alternate Delegate to the American Medical Association:

ation for the term of two years, July 1, 1938 to June 30, 1940:

\*Samuel C. Harvey, New Haven.

For Alternate Delegate to the American Medical Association to complete the unexpired term of Robert L. Rowley, July 1, 1937 to June 30, 1939:  
James R. Miller, Hartford.

For Delegates to State Societies for the term of one year, July 1, 1938 to June 30, 1939:

To Maine:

Clyde Deming, New Haven.

\*Alfred C. Henderson, Stamford.

To Massachusetts:

\*Phillip G. McLellan, Hartford.

Stanley B. Weld, Hartford.

To New Hampshire:

\*Thacher W. Worthen, Hartford.

\*Paul R. Felt, Middletown.

To New Jersey:

\*James R. Miller, Hartford.

\*Oliver L. Stringfield, Stamford.

To New York:

Charles H. Turkington, Litchfield.

\*D. Chester Brown, Danbury.

To Rhode Island:

Daniel Sullivan, New London.

Cecil R. Garcin, Danielson.

To Vermont:

\*George Blumer, New Haven.

\*Roy L. Leak, Middletown.

For Delegates to Special Societies:

For the term of one year, July 1, 1938 to June 30, 1939:

To the Connecticut State Hospital Association:

\*H. Bertram Lambert, Bridgeport.

To the Connecticut Pharmaceutical Association:

\*Arthur B. Dayton, New Haven.

For the Editorial Board of the Journal:

To reappoint Dr. Mirabile for a period of four years so that the Board will consist of:

1937 Herbert Thoms, New Haven, four years.

1937 Frank Jones, Hartford, three years.

1937 Oliver L. Stringfield, two years.

1938 \*Charles S. Mirabile, four years.

The Council elected the following:

The Committee on Cooperation with Yale School of Medicine:

\*Chairman of the Council.

\*President of the State Medical Examining Board.

\*Chairman of the Committee on Public Policy and Legislation.

Henry N. Costello.

Ralph A. McDonnell.

\*Daniel Sullivan.

The Committee on Permanent Funds:

\*H. Gildersleeve Jarvis, Hartford.

Charles T. LaMoure, Mansfield Depot.

\*The Treasurer of the Society.

Auditors:

Charles T. LaMoure, Mansfield Depot.

\*H. Gildersleeve Jarvis, Hartford.

Committee on Medical Expert Testimony:

\*Otto G. Wiedman, Hartford.

\*Paul W. Vestal, New Haven.

\*Harold W. Wellington, New London.

### Recommendations of the Council

#### Annual Dues

The Council recommends to the House of Delegates that to meet the requirements of the Budget for the year July 1, 1938, to June 30, 1939, that the dues in the amount of \$8.00 per member be assessed.

#### 1939 Meeting

The Council recommends to the House of Delegates that the invitation received from the New Haven County Medical Association to have the 1939 Annual Meeting of the Society in New Haven be accepted, the date of the meeting to be determined by the Council.

#### Amendment to Charter

The Council recommends to the House of Delegates that an appropriately drawn petition from this House be presented to the General Assembly of the State of Connecticut at its session in 1939, requesting that Section 3 of the Society's Charter as approved by Special Act 427, 1931, be amended so that the President-Elect will be designated as a member of the House of Delegates and that Section 3 will read as follows:

The House of Delegates of The Connecticut State Medical Society shall be composed of, (1) the President, the President-Elect, Treasurer and Secretary of the Society; (2) delegates to be elected annually as hereinafter provided, by the several county medical associations in this State which heretofore have been and are affiliated with The Connecticut State Medical Society and (3) eight councilors to be elected from time to time as hereinafter provided.

#### State Medical Practice Act

The Council recommends to the House of Delegates that the Council be directed to appoint a Committee from members of the Society to study the need and requirements for revision of the Medical Practice Act of the State of Connecticut and to proceed with the presentation of a bill to the forthcoming General Assembly if deemed advisable.

#### Changes in Sanitary Code

The Council recommends to the House of Delegates that a memorandum be submitted to the Public Health Council of the State of Connecticut recommending that the Sanitary Code of the State be amended to require a blood pressure determination, urine examination and an accepted serological diagnostic test for syphilis for every expectant mother under the care of a physician.

#### Restriction of Sale of Barbiturates

The Council recommends to the House of Delegates that the Committee on Narcotic Drug Addiction of the Society be directed to prepare and present to the forthcoming General Assembly of the State of Connecticut a bill designed to restrict the sale of barbiturates and other hypnotic drugs to the prescription of physicians.

#### Program Committee

The Council recommends to the House of Delegates that Chapter 8 of the By-Laws of the Society be amended by the deletion of the line, "A Committee on Scientific Work" and all of Section 2, and to substitute therefor by the addition to Chapter 8, Section 1, "A Program Com-

\*Renomination.



mittee", and to add a new Section 2 to that chapter as follows:

The Program Committee shall consist of three members which shall be nominated by the Council and elected by the House of Delegates. At the annual meeting of the House of Delegates in 1938 the Council shall nominate one member of the Society to serve as a member of the Program Committee for three years, one member to serve as a member of the Committee for two years, and one member to serve as a member of the Committee for one year. Annually thereafter the Council shall nominate to the House of Delegates one member of the Society to serve as a member of the Program Committee for three years. The Council shall designate the chairman of the Committee. The duties of the Program Committee shall be to arrange the scientific program for the meetings of the Society and it shall prepare such program for the Annual Meeting and submit it to the Executive Secretary of the Society for publication not less than two months preceding the date of the meeting.

#### **Committee on Public Relations**

The Council recommends to the House of Delegates that Chapter 8, Section 1 of the By-Laws of the Society be amended by the addition of a Committee on Public Relations and to further amend Chapter 8 by the addition of a new Section 7; Section 7 to read:

At the Annual Meeting in 1938 and annually thereafter, the Council shall nominate to the House of Delegates one member of each component county association to serve for the period of one year on the Society's Committee on Public Relations. The chairman of this Committee shall be designated annually by the Council. The duties of this Committee shall be to inquire into and pass upon such phases of public information as deal with the care of the sick and the practice of medicine. If the Committee so desires, its deliberations and conclusions may be reviewed and passed upon by the Council of the Society, but such approval shall not be mandatory.

#### **Special Meetings of the House of Delegates**

The Council recommends to the House of Delegates that Chapter 4, Section 3 of the By-Laws of the Society be amended by the addition of, "by the President or the Council," so that the Section will read:

Section 3. Special meetings of either the Society or the House of Delegates may be called by the President or the Council and shall be called by the President on petition of 10 members of the House of Delegates or 50 members of the Society.

#### **Addition of President-Elect to the Council**

The Council recommends to the House of Delegates that Chapter 7, Section 1 of the By-Laws of the Society be amended by the addition of the President-Elect so that the first sentence of that section shall read:

Section 1. The Council shall consist of one counselor from each county and the President, President-Elect, the Secretary and Treasurer ex-officio.

#### **Collection of Dues**

The Council recommends to the House of Delegates that Chapter 11, Section 10 of the By-Laws of the Society be amended by the substitution of a new section as follows:

Section 10. The County dues of the Society shall be due and payable on January 1 of each year and the fiscal year of the Society shall terminate on December 31 of each year.

The Secretaries of the component county associations shall be charged with the collection from the members of their associations, the dues assessed by this Society. Bills for such dues shall be rendered to all members immediately following the first of January of each year, and the Secretaries of the component county associations shall forward to the Treasurer of this Society on or before the 10th of each month, all monies collected by them and due the Treasurer of the Society.

The following are excerpts from the Reports of the Councilors throughout the State:

#### **Fairfield County:**

Dr. James Douglas Gold, Councilor.

Fairfield County has had an active winter with monthly meetings in conjunction with the city societies of Greenwich, Stamford, Norwalk, Danbury and Bridgeport. The meetings have been well attended and the papers presented of great interest. This activity was stimulated by our Board of Trustees.

#### **Hartford County:**

Dr. H. Gildersleeve Jarvis, Councilor.

All business of the Association is handled by our Board of Directors at monthly meetings, and as Councilor, I am a member of that Board. The Medical Information Bureau which was set up during the year in conjunction with The Hartford Medical Society is working out very satisfactorily.

#### **Litchfield County:**

Dr. Harry B. Hanchett, Councilor.

Refresher courses in obstetrics and pediatrics were given during the year and the Association instructed its delegates to favor state-wide prepaid hospitalization.

#### **Middlesex County:**

Dr. Roy L. Leak, Councilor.

Two new hospitals have been organized: One by Dr. Carl P. Wagner, for the care and treatment of milder types of mental and nervous diseases. The hospital is located in Portland, is excellently equipped and is a distinct addition to the hospital facilities of Middlesex County. The other hospital was established by Dr. Louis Loffredo, who organized a twenty-five bed hospital, and has at the present time a regular staff of nine, and is well equipped to do general surgical and obstetrical work.

#### **New Haven County:**

Dr. Henry L. Swain, Councilor.

During the present year we had our usual two meetings which have been well attended, most excellently arranged and faultlessly carried through. The meetings have been harmonious in thought and action, notwithstanding constitutional changes, new deals, new intents and philosophies as to distribution of national funds and lessening the cost of medical care to the patient, all of which have been well discussed.

#### **New London County:**

Dr. George H. Gildersleeve, Councilor.

New London has held the usual two meetings for the year and the spring meeting attendance was the largest in

several years. The finances of the Association are in excellent order. Bills are kept paid to date, and there is a comfortable balance on hand.

Tolland County:

Dr. Charles T. LaMoure, Councilor.

During the past year the Tolland County Medical Association has held two regular meetings. These meetings have been held at the Old Homestead Inn at Somers. Windham County:

Dr. Robert C. Paine, Councilor.

Windham County Medical Association has moved along during this last year in a smooth and even manner and the meetings have been well attended.

Respectfully submitted,

JAMES DOUGLAS GOLD, Chairman

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#### REPORT OF THE EXECUTIVE SECRETARY

Mr. President and Members of the House of Delegates:

A detailed statistical report of the membership of the Society would take more time than should now be allowed for it and such a report will be published in extenso in the Journal. Briefly, however, it should be said that the year just passed has been a most successful one for the Society, both from the point of view of the increase in membership and in the activities of the Society.

At the Annual Meeting last May our membership was 1611, and since that time there has been a gross gain of 138 members; 125 new members were elected, 7 old members reinstated and 6 received by transfer from other state societies. 51 members have been lost, 36 by death, 4 by resignation, 7 by transfer to other societies and 4 dropped for non-payment of dues, making a net gain of 87 and a total membership to day of 1698.

This is by far the largest membership that the Society has ever had and the net gain of 87 members far exceeds any other annual increment. For instance, in the year 1932-33 the net gain was 18, the year 1933-34, the net gain was 8, et cetera. The increase in membership of the Society is now far more rapid than the addition of newly licensed physicians in the State, and the reasons for this increase in interest on the part of the doctors of Connecticut will, I think, be fairly clear to you all.

With the rate of increase that we are now experiencing, it will not be long before the number of members in the Society must arrive at a maximum and remain more or less static. There are now about 500 physicians in the State who are not members of the State Society. Our membership rules require residence within the State for one year following licensing. This delay in eligibility accounts for 25% of the physicians who are not members. There are many physicians who have been members of the Society and for one reason or another have withdrawn, usually because they have failed to pay their dues, these will perhaps account for another 20% of the 500 non-members. In any professional group there are always some disinterested individualists who do not care to cooperate with their colleagues. The number of such in Connecticut is small, I believe. Then there are, of course, some definitely ineligible men who could not become members of the Society. On a fairly accurate estimate there are probably not more than 100 physicians in the State who could and should be members of the State Society and who are

not. This is an enviable state of affairs, for in this universal interest our progress and usefulness will be increased.

The years that lie just ahead will be important ones for this Society and the whole of medicine. I believe that we are becoming organized to wisely meet the demands that will be made upon us. One thing, however, must be remembered and that is that the burden of responsibility and thought and judgment must be shared by us all. It is not enough to set up an executive office no matter how efficient that office may be and let it go at that. Neither can the Council alone formulate all policies. There must be committees composed of our members who have a special interest and a special knowledge of the subject presented for consideration to which responsibility must be delegated. The members of those committees must accept their tasks willingly and unselfishly. Such service for the Society will take time from your private pursuits, time perhaps when you would rather be playing golf, but always remember this is your Society — your guild, and those of us who carry the day to day responsibilities for the administration of the Society's affairs bespeak your cooperation.

Respectfully submitted,

CREIGHTON BARKER,

Executive Secretary

#### Deaths

May 1937 — June, 1938

##### FAIRFIELD

Francis Irving Nettleton, Shelton, 3/20/38.

Nathaniel Selleck, Danbury, 4/ /38.

Joseph Seymour Tennen, Stamford, 12/ /37.

##### HARTFORD

John F. Axtelle, Wallingford, 2/8/38.

Robert V. Boyce, Hartford, 12/29/37.

William Elry Caldwell, Suffield, 8/18/37.

John C. Carver, Simsbury, 2/4/38.

John Francis Dowling, Hartford, 7/20/37.

Calvin Hayes Elliot, Hartford, 3/ /38.

LeVerne Holmes, Manchester, 3/26/38.

James Francis Kelly, Hartford, 3/ /38.

Thomas Smith O'Connell, Hartford, 2/26/38.

Edward King Root, Hartford, 8/12/37.

Arthur Joseph Savard, New Britain, 11/11/37.

Walter John Robbins, New Britain, 11/22 /37.

Loren R. Weir, New Britain, 2/9/38.

Mendel Volkenheim, New Britain.

##### LITCHFIELD

John Laidlaw Buel, Litchfield, 9/1/37.

William Joseph Hogan, Litchfield, 5/22 /37.

Edward L. Pratt, Winsted, 3/3/38.

Thomas I. Shannon, Norwich, 11/30/37.

George Edwards Staub, New Milford, 11/24 /37.

##### MIDDLESEX

Albert Field, East Hampton, 8/25 /37.

John Elijah Loveland, Middletown, 9/12/37.

##### NEW HAVEN

Fred Walter Comstock, New Haven, 7/ /37.

Thomas M. Bull, Naugatuck, 3/30/38.

Charles E. Kaufman, West Haven, 1938.

Hugh Francis Keating, New Haven, 8/ /37.

Paul R. Stetson, New Haven, 12/7/37.

George Streit, New Haven, 1/5/38.



Jeremiah Barrett Sullivan, New Haven.  
Helen West, Meriden, 8/22/37.

#### NEW LONDON

John James Donohue, Montville, 4/17/38.  
Samuel Ginsburg, Norwich, 12/31/37.  
Charles K. Stillman, Mystic, 3/22/38.  
George Thompson, Norwich, 9/17/37.



### THE REPORT OF THE TREASURER

At the last annual meeting your Treasurer improperly reported on the state of the finances of the Society for the period of January 1, 1936 to May 1, 1937. This error is corrected in the present report which presents a complete statement of the years 1936 and 1937, in accordance with the constitution and by-laws.

The rapidly growing complexity of the affairs of the Society have led your Treasurer, with the backing of the Council, to secure expert assistance of the accountant firm of Hadfield, Rothwell, Soule and Coates, of Hartford. This firm, under his direction, has prepared a statement of cash receipts and disbursements for the calendar years 1936 and 1937, a statement of assets and liabilities as of December 31, 1937, and has offered suggestions for the future accounting of the Society's funds. These statements constitute therefore the main body of the Treasurer's report and comments are offered as follows:

1. "Exhibit A" Statement of assets and liabilities as of December 31, 1937, (the first presentation of such statement) is essential to a complete understanding of our financial status.

2. The Russell Fund is carried as a "permanent fund" though the fund may be used in whole or in part for any purpose desired.

3. A complete statement of assets and liabilities should include the funds of the Clinical Congress and these funds should be subject to the annual audit. This is clearly the duty of your Treasurer, though he has hesitated without instructions from the Society to upset the customary routine of many years, with which the Society appears to be completely satisfied. The Treasurer would appreciate having instructions from the Society specifically authorizing that the funds of the Clinical Congress be subjected to the annual audit and control of the Treasurer's office, or specifically stating that the funds of the Clinical Congress are to be set aside by the Society outside of the Treasurer's control.

4. Under "Liabilities" will be noted \$4987.85, already "earmarked" for the purpose set forth in Schedule 6. This budget is to run until June 30, 1938. There is also \$5696.98 available for use during the remaining six months of 1938.

5. "Schedule 1" represents the Treasurer's account such as has been given in previous years, the items on this statement which call for comment are as follows:

The Commercial Exhibit has yielded a profit of \$2108.78, instead of an expense of \$600.00 which was allocated in the budget at the annual meeting of last year.

The unusually large items of expense for the Legislative Secretary will not recur, as these represented in 1936, three years' salary of the previous secretary. A great change will be noted in the items "Printing and Stationery". The 1936 item represented two years' printing

of the former "Transactions" of the Society. It will be noted therefore that approximately one-half of this item would be the equivalent of the 1937 expenses of the Scientific Secretary for running the Journal.

6. There are funds in the State treasury approximately adequate to meet the expenses of the Society for the last six months of this year if expenditures are kept at the same budgetary level as for the first six months. This could be done without drawing on the Russell Fund. Any increase in the dues for 1939 will not bring additional revenue to the Treasury to support an enlarged and more expensive program before 1939. It is to be borne in mind however that during the current year the dues for 1937, which have already been received, will be augmented by the dues for 1938 which will be paid into the Treasury during the current year, so that adequate funds will be on hand to take care of any reasonable expansion in the activities of the Society during the remainder of this year.

The complete report of the public accountant is available for inspection at the Society's office at any time.

#### Exhibit A

#### Statement of Assets and Liabilities as of December 31, 1937

##### ASSETS

##### General Fund:

##### Cash in Banks:

Hartford National Bank & Trust Company — Treasurer Account, per Schedule "1" . . .	\$1,150.96	
Second National Bank of New Haven — Administrative Secretary Account, per Schedule "2" . . . . .	1,052.87	
Capitol National Bank & Trust Company — Journal Account, per Schedule "3" . .	770.73	\$ 2,974.56

Dues Receivable for the Calendar Year 1937 . . . . .	7,710.25	
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Total Assets—General Fund . .	\$10,684.81	
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##### Special Fund:

##### Gordon W. Russell Fund:

Deposit in Mechanics Savings Bank, per Schedule "4" . . . . .	1,340.93	
\$8,000.00 par value of bonds, at Dec. 31, 1937, quoted market values, per Schedule "4" . . . . .	6,400.00	

Total Assets—Special Fund . .	7,740.93	
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##### Trust Fund:

##### O. C. Smith Trust Fund:

On deposit in Mechanics Savings Bank, per Schedule "5" . . . . .	1,000.00	
Accumulated undrawn income —on deposit in Mechanics Savings Bank, per Schedule "5" . . . . .	528.27	

Total Assets—Trust Fund . . . .	1,528.27	
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Total Assets—All Funds . . . . .	\$19,954.01	
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## LIABILITIES

General Fund:	
Appropriations — unexpended balance, per Schedule "6"....	\$ 4,987.83
General Fund.....	5,696.98
Total Liabilities—General Fund	10,684.81
Reserve for Gordon W. Russell Fund.....	7,740.93
Reserve for O. C. Smith Trust Fund:	
Principal account.....	1,000.00
Undrawn income.....	528.27
Total Reserve—O. C. Smith Trust Fund.....	1,528.27
Total Liabilities.....	\$19,954.01
Clinical Congress and Commercial Exhibit funds of The Connecticut State Medical Society are not included above.	

## SCHEDULE 1

## Treasurer's Cash Receipts and Disbursements for the Calendar Years 1937 and 1936

	Calendar Years 1937	1936
Balance, beginning of year.....	\$ 2,853.14	\$ 8,344.63
Received:		
Dues.....	6,997.31	5,227.96
Auto emblems.....	291.20	180.00
Commercial exhibit.....	2,108.78	—
Annual meeting expense refund.....	175.25	—
Gordon W. Russell Fund—furniture.....	—	863.29
O. C. Smith Trust Fund—advance.....	—	62.00
Miscellaneous.....	47.13	—
Total.....	\$12,472.81	\$14,677.88
Disbursed:		
Administrative Secretary.....	\$ 4,595.00	\$ 2,070.83
Scientific Secretary—Journal....	2,497.22	944.44
Legislative Secretary.....	1,084.31	1,117.44
Annual meeting expenses.....	1,448.86	875.13
Dues refund.....	7.60	—
Auto emblems.....	180.00	360.00
Printing and stationery.....	27.71	5,476.81
Typewriter.....	76.25	—
Treasurer's bond.....	12.50	—
Chairman of Council—traveling.....	100.00	—
Exhibit—Tumor Committee....	58.29	—
Loan to Journal.....	1,234.11	—
Rent of safe deposit vault.....	—	3.30
Gordon W. Russell Fund—furniture.....	—	904.29
O. C. Smith Trust Fund—advance.....	—	62.00
Furniture.....	—	10.50
Total.....	\$11,321.85	\$11,824.74
Balance, End of Year, December 31, 1936.....		\$ 2,853.14

Balance, End of Year, December 31, 1937, per Exhibit "A".....\$ 1,150.96

## SCHEDULE 2

## Administrative Secretary's Cash Receipts and Disbursements for the Calendar Year 1937 and Period from June 1, 1936 to and Including December 31, 1936

	Calendar Years 1937	1936
Balance, Beginning of Year.....	\$ 60.97	
Received:		
Total.....	5,591.10	\$ 2,390.93
Disbursed:		
Total.....	4,538.23	2,329.96

Balance, End of Year, December 31, 1936.....\$ 60.97

Balance, End of Year, December 31, 1937, per Exhibit "A".....\$ 1,052.87

## SCHEDULE 3

## Journal Receipts and Disbursements for the Calendar Year 1937 and Period from July 1, 1936, to and Including December 31, 1936

	Calendar Years 1937	1936
Balance, Beginning of Year.....	\$ 170.67	
Received:		
Total.....	6,379.83	\$ 1,843.97
Disbursed:		
Total.....	5,609.10	1,673.30

Balance, End of Year, December 31, 1936.....\$ 170.67

Balance, End of Year, December 31, 1937, per Exhibit "A".....\$ 770.73

## SCHEDULE 4

## Gordon W. Russell Fund

## Cash Receipts and Disbursements for the Calendar Year 1937

Balance, January 1, 1937—Mechanics Savings Bank.....	\$ 1,011.64
Received:	
Bond interest.....	287.50
Bank interest.....	41.79

Balance, December 31, 1937, Mechanics Savings Bank, per Exhibit "A".....\$ 1,340.93

## SCHEDULE 5

## O. C. Smith Trust Fund

## Cash Receipts and Disbursements for the Calendar Year 1937

Balance, January 1, 1937, Mechanics Savings Bank.....	\$ 417.33
Received:	
Proceeds, bond called.....	\$ 1,049.58
Bond interest.....	22.50
Bank interest.....	38.86

Balance, December 31, 1937, Mechanics Savings Bank, per Exhibit "A".....\$ 1,528.27

Respectfully submitted,  
JAMES R. MILLER.



**REPORT OF THE FINANCE COMMITTEE**

The Finance Committee reported to the Council as follows:

A meeting of the Finance Committee was held at the Hunt Memorial Building in Hartford on the 28th of March. The Committee respectfully submits the following items for the budget for the year July 1, 1938 to June 30, 1939.

1. To the Journal, the sum of which includes the editorial salary. . . . . \$ 4,800
2. To the Office of the Executive Secretary.  
This shows an increase of \$1000 for the employment of another full time office worker. The Executive Secretary's salary is increased \$900 which is a total of \$1500. General expenses of the executive office, postage, travel, etc., are unchanged. . . . . \$ 5,700
3. To the Chairman of the Council. . . . . \$ 250
4. Delegates to the annual meeting of the American Medical Association. . . . . \$ 400
5. To the Legislative Secretary. . . . . \$ 250
6. To the Legislative Committee. . . . . \$ 600
7. Miscellaneous Expenses. . . . . \$ 500

This makes a total of. . . . . \$12,500

To meet this budget, the Committee recommends a tax of \$8.00 per member.

This increase of salary of the Executive Secretary's office for himself and the additional office worker is a necessary addition to the budget because of the increasing amount of work which is being brought to the office, not alone from the general run of work, but additional committee requests for stenographic reports, meetings and mailing of notices.

Respectfully submitted,

JAMES D. GOLD,  
Chairman of the Finance Committee

—☆☆—

**REPORT OF THE COMMITTEE ON MEDICAL EXAMINATION AND MEDICAL EDUCATION**

Mr. President and Gentlemen of the House of Delegates:

The Connecticut Medical Examining Board admitted to its examinations during the past year, one hundred and eighty-seven applicants. Of this number, one hundred and three took the written examinations and eighty-four were admitted to the examinations on the basis of credentials. There was a total of forty failures or twenty-one per cent. Five Osteopaths took the examinations and there were four failures or eighty per cent.

The Board has recommended to the Council that suitable legislative action be taken to return the responsibility of the Examining Board to the State Medical Society somewhat after the manner of the Connecticut Bar Examining Board.

Respectfully submitted,

T. P. MURDOCK.

Secretary.

**REPORT OF THE COMMITTEE ON HONORARY MEMBERS AND DEGREES**

Mr. President and Gentlemen of the House of Delegates:

The Committee on Honorary Members and Degrees believing that honorary membership in this Society should be limited to those who have contributed something to the science and art of medicine, especially by those who have had some relation to Connecticut by birth or otherwise, have no nominations to present to the House of Delegates this year.

We also believe that this membership should be small and select, being an honor to this Society and to those thus chosen.

Respectfully submitted,

WALTER R. STEINER,

Chairman of the Committee on  
Honorary Members and Degrees.

(Continued in September Issue)

—☆☆—

**OBSTETRICAL CONSULTING SERVICE**

The Connecticut Obstetrical Consulting Service is now operating with the aid of Federal funds. A list of forty obstetricians throughout the state has been published and sent out to the physicians. For a ten dollar fee paid by the State any one of these consultants may be called by any physician practicing within this State, provided the patient is in the opinion of the attending physician unable to pay for a consultation. "The purpose of this program is to make it possible for physicians to obtain skilled obstetrical consultation for abnormal or borderline cases who otherwise would not be able to secure this type of care.

—☆☆—

**MINNESOTA ATTORNEY GENERAL RULES IN FAVOR OF FREE CHOICE OF PHYSICIAN**

The Attorney General of the State of Minnesota, following an exhaustive study of the matter, has ruled that a person on relief may select his own physician. All the county welfare boards in that state have been notified in an administrative letter that persons on relief should be permitted to select their own doctor. The decision hinged on the interpretation of the words "free choice of vendor" appearing in the State Laws. —*Minn. Med.*, June, 1938.

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## Our Neighbors

### NEW HAMPSHIRE

At the recent annual meeting of the New Hampshire Medical Society, Dr. Clarence O. Coburn, Manchester, was elected president, Dr. James B. Woodman, Franklin, vice-president, and Dr. Carleton R. Metcalf, Concord, secretary.



### RHODE ISLAND

Rhode Island enacted a law providing for testing the blood of pregnant women for syphilis. This was approved by the Governor in April.

The Committee on Maternal Mortality of the Rhode Island Medical Society has published its report obtained from material furnished by the Bureau of Vital Statistics and covering a period of five years, January 1, 1931 to December 31, 1935. Many interesting facts are contained in this report. There were fifty-two deaths from abortion with sepsis and nine deaths with no mention made of sepsis in the returns. Twenty-seven deaths were classified as non-obstetrical and of these there are some which the Committee believe might have been avoided if the importance of pregnancy as a complication of the pre-existing or intercurrent disease had been fully realized and adequate treatment given. There were four deaths from pregnancy as a contributing cause of death. Abortions account for about twenty per cent of the deaths in this series. Twelve patients died of ectopic gestation. There were eight deaths from placenta praevia, three of them due to sepsis. The Committee believes that the lives of some of these might have been saved by immediate hospitalization and by choosing a method of delivery other than dilatation of the cervix, version and immediate extraction. There were eighteen deaths from post-partum hemorrhage. Some of these were inevitable but others were due to mismanagement or neglect. Thirty-seven deaths were reported as due to sepsis after the seventh month. Toxemia, including chronic nephritis and hypertension, was in this series the most frequent cause of death. Inadequate prenatal care was an outstanding factor in these cases. Other toxemias

of pregnancy accounted for eight deaths. Another group including puerperal phlegmasia alba dolens, embolism and sudden death (not specified as septic) accounted for nineteen deaths, most of them due to embolism. Twenty-four deaths followed Caesarian section, sixteen of these due to the operation itself. Other accidents of pregnancy accounted for sixteen deaths. Rhode Island has a good record for in 1936 it shared with New Jersey the lowest maternal mortality rate in the Union — 4.0 per thousand live births. The rate for 1937 according to the Rhode Island Bureau of Vital Statistics was reduced to 3.4 per thousand live births.



### NEW YORK

With the completion of three years' operation on January 1, 1939, the Group Plan of malpractice insurance of the Medical Society of the State of New York will contain several changes of benefit to its policy holders. These changes are being made as a result of an actuarial study based on experiences now available. The new Master Policy will broaden the coverage now in force by including full and complete coverage, without additional premium charge, protecting the assured on account of all medical acts committed or alleged to have been committed by all temporary and permanent medical assistants, providing said assistants are members of the Society and individually insured under the Society's Group Plan. In addition, it will eliminate any additional premium charge at present made with respect to the independent acts on behalf of the assured for both X-ray and pathological technicians. A revision of the majority of the excess limit rates has also been approved which will offer to the members an opportunity to subscribe to larger limits than they at present carry, at approximately the same annual premium rate they are now paying. This modification will also apply to the excess X-ray therapy rates.

The Medical Expense Indemnity Plan was turned down by the House of Delegates of the Medical Society of the State of New York at its recent annual meeting. According to the Westchester Medical Bulletin, this act "has plunged the head of organized medicine in the sand for another year. If the exposed rear end comes in for a few swift kicks during that interval, nobody will be surprised and only the profession will be



hurt." The Westchester editor's comment merits some thought. "The issue facing our profession is *not*: Shall we have collectivism or individualism; but *rather*: Shall we have collective medicine operated by politicians on a compulsory basis, with lay control of medical matters,— *or*, shall we have collectivism on a voluntary basis operated cooperatively by the physicians and their patients, with the control of medical matters invested in our own professional organization?"

According to the New York State Journal of Medicine the cornerstone of the largest cancer hospital in the world, the new Memorial Hospital for the Treatment of Cancer and Allied Diseases in New York City, was laid on May 20 in the presence of a distinguished gathering of medical men and cancer authorities. The principal speaker was Dr. James Ewing, director of the hospital and president of its medical board, one of the world's foremost authorities on cancer. The new hospital is a twelve-story and penthouse building costing nearly \$4,000,000. Labor troubles delayed the completion of the building about one year and added an additional \$1,000,000 to the cost.

The Department of Health of the City of New York, after consultation with leading obstetricians, pediatricians, representatives of county medical societies, the New York Academy of Medicine, and various hospital, medical and nursing groups, has established regulations governing lying-in institutions and nurseries for the newborn in New York. These regulations, published in full in the *Journal of the American Medical Association* for April 9, 1933 (pp. 1156-1158), are for the guidance of all personnel connected with such institutions in maintaining an aseptic technique in maternity and delivery-room units, nurseries for newborn infants, laundries, formula rooms, accessory rooms, and sanitary equipment. Aseptic techniques for nursery, maternity ward, delivery room, and feeding of infants are prescribed. Regulations are included for the examination of maternity patients, and for the restriction of visitors and visiting hours in maternity wards.—*The Child, May, 1938.*

A New York law approved by the Governor in March 1938 provides for testing the blood of

pregnant women for syphilis. Physicians attending pregnant women are required to take a blood sample at the first examination and to submit it to an approved laboratory for serological testing; other persons permitted to attend pregnant women must call on a physician for this purpose. After January 1, 1939, birth certificates and stillbirth certificates must show whether the mother was given a blood test for syphilis. If no blood test was given, the reason must be shown.—*The Child, May 1938.*

The City of New York Department of Health has adopted new forms of certificates for live births and for stillbirths, which will give the detailed medical information indispensable in any effort to prevent unnecessary deaths at or near birth. On the back of both certificates the physician or other attendant at birth is required to give important medical data which are held confidential. Additional questions are to be found on the back of stillbirth certificates. These changes have received the approval of the various medical groups in New York City. They are in accord with the recommendations of the Subcommittee on Stillbirths of the American Public Health Association and with the recommendations of the American Committee on Maternal Welfare.



## NEW JERSEY

Two of the twelve objectives laid down by the new president of the Medical Society of New Jersey are of some interest. The first relates to socialized medicine and plans to protect all the people of New Jersey, rich and poor alike, from costly, impersonal, and inefficient socialized medicine in any form, whether complete medical care for all the people at public expense or partial care as now carried in some of the counties. The other objective of note is to secure State aid in the care of the indigent, and at the same time preserve for them the free choice of physicians. State subsidy for the indigent is necessary if efficient service to the low-wage groups is to be rendered and at the same time have preserved for them the personal and sympathetic care of physicians of their own choice.

## - NEWS -

### *from County Associations*

#### Fairfield

Dr. Francis Winthrop Pyle, for many years a prominent physician in Bridgeport, died in the Bridgeport Hospital on May 20th. For twenty years Dr. Pyle was one of the chiefs of the medical service at the Bridgeport Hospital, and had been President of the Bridgeport Medical Association in 1924.

The Board of Trustees of the Fairfield County Medical Association, in cooperation with the various local medical societies of the county, have planned a program for a series of talks on the physiology and pathology of the gastro-intestinal tract and related organs. The meetings are to be held at various places in the county during 1938-39, and should prove to be very interesting and useful for physicians. The tentative program is as follows:

1. "Mechanics of Gastro-Intestinal Tract in Health and Disease," by Dr. Alfred Z. Gilman of New Haven on Wednesday, October 5th in Danbury.
2. "The Patient and his Indigestion." Speaker unchosen, on Tuesday, November 8th in Bridgeport.
3. "Treatment of Peptic Ulcer and its Complications," by Dr. John L. Kantor of New York on Tuesday, January 10th in Greenwich.
4. "Carcinoma of the Stomach," by Dr. Samuel Harvey of New Haven, on Wednesday, February 8th in Norwalk.
5. "Diseases of the Gall-bladder and Bile Ducts," by Dr. Isidore S. Ravdin of Philadelphia, on Tuesday, March 14th in Stamford.
6. "Diseases of the Liver," by Dr. Chester M. Jones of Boston on Thursday, May 11th in Danbury.

Dr. Edward E. Rowell, 84, a practicing physician in Stamford for over sixty years, died at his home there on June 27 after an illness of a few weeks. Born in West Concord, Vermont, Dr. Rowell received his medical degree at the New York Homeopathic College. Among his children are Dr. Edward E. Rowell, Jr., of Greenwich and Dr. Rodney P. Rowell of Stamford.

#### Hartford

On July 7 State and local officials, trustees of the Hospital Corporation of Southington and townspeople joined in dedicating the new \$100,000 Bradley Memorial Hospital in Southington. Dr. Stanley H. Osborn, State Commissioner of Health, in delivering the principal address urged that this hospital be used as the headquarters for a district department of health for Southington and the surrounding towns. Such a department with a full time health officer, Dr. Osborn pointed out, could be established at a cost of fifty cents per capita. The Southington Public Health Association will be the first to move into the new building, occupying its quarters in about three weeks.

The announcement has been made of the engagement of Dr. DeHart Krans of Hartford to Miss Jean Long, a graduate of the Hartford Hospital Training School for Nurses. Dr. Krans is a graduate of Dartmouth College and of Cornell Medical School and has just completed a two year internship at the Hartford Hospital.



#### New Haven

The Division of Research in Child Development recently announced that an investigation of the physical condition, nutritional status, and growth of approximately 1,000 six year old children living in New Haven has been completed. Analysis of data is in progress.

Ira V. Hiscock, Professor of Public Health in the Yale University School of Medicine, has been elected president of the National Health Council for 1938.

Dr. Myron J. Fox, 37, a practicing physician in Waterbury, died at the Massachusetts General Hospital, Boston, on June 28 of heart disease. Dr. Fox was born in Boston and graduated from Harvard, McGill and Johns Hopkins Universities.



#### GROUP HOSPITAL INSURANCE IN VIRGINIA

Group hospital insurance now has 40,000 members in the State of Virginia, 18,000 of whom are in Richmond. It has been adopted in four other cities and is being tried in a number of others. There is an effort being made to establish a group hospital plan on a state-wide basis.—*Va. Med. Mon.*, June, 1938.



## • OBITUARIES •

### HELEN WEST, M.D.

1868 - 1937

Dr. Helen West, daughter of Alfred and Marion Pinkney, was born in Plainfield, Connecticut, October 24, 1868. Her childhood and girlhood were spent in Norwich, Connecticut, where she was graduated from the Norwich Academy. Because of the untimely death of her father, it was necessary for her to teach school for a few years in order to provide funds for further education.

She entered Boston University Medical School and was graduated in 1890. After her medical course, she spent one year as interne at the Hospital for Women and Children in Brooklyn, New York. She then began her profession in Meriden where she practiced for forty-two years. Starting her career at a time when there were few women in the field, she demonstrated unusual courage and pluck, and soon developed a large practice. In the early days of her work, she often performed the duties of physician and nurse, never selecting the type of case and never sparing herself because of her sex. As a reward for her skill and care, she acquired a large number of loyal patients and true friends. She was intensely interested in the growth and development of children, and for many years was one of the Meriden school physicians. Her work in this capacity was characterized by a continuous effort to improve the school-girl posture — a point that is too often neglected in the American school system.

Her vacations were spent in travel, and during her life, she had made many trips abroad and had visited nearly every country in the world. She was very fond of animals, particularly horses, and during her younger days kept herself in good physical trim by a daily canter.

Dr. West was a member of the Meriden Medical Society, the New Haven County Medical Society, the Meriden College Club, and a director of the Visiting Nurses' Association. Her death, occurring August 22, 1937, ended the career of one of Connecticut's early women

physicians and one of Meriden's finest personalities. She is survived by one sister, Mrs. Marianna Treadway, and one niece, Mrs. Arthur Chickering, both of Lancaster, Mass.

Arthur A. Tower, M.D.



### JOHN LAIDLAW BUEL, M.D.

1861 - 1937

Dr. John Laidlaw Buel was born in Litchfield, November 26, 1861, and died September 1, 1937.

Dr. Buel was the son of Dr. Henry W. and Mary Ann (Laidlaw) Buel and a direct descendant of Deacon John Buel one of the early settlers of Litchfield. Dr. Buel's grandfather, Samuel Buel, and great-uncle William Buel, were both physicians in Litchfield and practiced together until Dr. William Buel removed to Sheffield, Mass.

In 1858, Dr. Buel's father founded the Spring Hill Home for nervous invalids. This was one of the first private sanitariums in the country, and is said to have been the first private institution established in Connecticut for the care of the mentally ill.

Dr. Buel received his early education in Litchfield and at Phillips-Andover Academy. He entered Yale and was graduated in the class of 1885, and in 1888 was graduated from the College of Physicians and Surgeons, N. Y. University. His father was a graduate of Yale 1844, and also was graduated from the College of Physicians and Surgeons. After graduation from medical school Dr. Buel spent two years at the New York Hospital and then began the practice of medicine in Litchfield. He later associated himself with his father in the Spring Hill Home for nervous invalids and at his father's death became the active head of the institution which he conducted until 1926.

Aside from his connection with the sanitarium, Dr. Buel carried on an extensive practice and though gradually retiring in later years cared for many of his old patients up to a short time before his death.

Dr. Buel's activities extended far beyond the realm of his profession. He was formerly a director of the First National Bank of Litchfield, one time member of the Borough Board of Burgesses, and from 1929 to 1935 represented Litchfield in the legislature. For many years Dr. Buel served as chairman of the Litchfield

Board of Education and was chairman of the building committee when the new Center School was built. He was a former president of the Litchfield County Medical Association. He was active in Masonic circles. He was one of the founders of the Sanctum Club, and its president for a period of 29 years. Also at the time of his death he was consulting psychiatrist at the Charlotte Hungerford Hospital, Torrington, president of the Litchfield Mutual Fire Insurance Company, president of the Litchfield Woodruff Insurance Building Corporation, president of Litchfield Water Company and chairman of the Board of Education.

Dr. Buel leaves his wife, Mrs. Elizabeth C. Barney Buel, a sister, Mrs. Francis Blake, a daughter, Mrs. Stewart Tompkins and one grandson.

Dr. Buel was not only physician to his patients but also counselor and friend. He was the real definition of a gentleman, a scholar, a sportsman, a genial companion and in personality and character exemplified the best in Litchfield County traditions.

Charles H. Turkington, M. D.



### JOHN ELIJAH LOVELAND, M.D.

1864 - 1937

Dr. John Elijah Loveland was born in Middletown, Conn., on October, 28, 1864, the youngest son of Elijah and Sarah (Strong) Loveland. His birthplace was at 95 Broad Street, the house in which he spent his entire life.

Dr. Loveland attended the local schools and Wilbraham Academy, from which he was graduated in 1885. He then entered Wesleyan University from which he graduated with honor in the Class of 1889, receiving his B.A. degree and Phi Beta Kappa key. He was a member of the Psi Upsilon fraternity. While at Wesleyan he was somewhat of a class orator and debater. On his graduation, a leading lawyer of Middletown tried to persuade him to enter law, and offered to take him into his office to do so. Dr. Loveland had however, chosen medicine as his career, and he entered Harvard Medical School where he received his doctor's degree in 1893. He then

started a practice in Middletown, Conn., that was to continue for forty-four years.

On June 19, 1907, he married Gertrude May Fowkes of Maherly, Ontario, Canada. They had no children.

Dr. Loveland's chief interest was surgery. From its very beginning he took an active interest in the development of the Middlesex Hospital. He assisted in the first operation performed there. A laborer in the Portland quarry had been run over by the quarry train. Dr. Loveland administered ether while Dr. John E. Bailey assisted by Dr. Francis Edgerton amputated the thigh. The operation was successful, and the patient lived for more than twenty years. Dr. Loveland was constantly thinking and working to improve the medical and surgical services and all departments of the hospital. The high standards to which it has attained are largely due to his persistent efforts. Dr. Loveland was a member of the visiting surgical staff. For many years he was one of the chief surgeons, retiring in 1930 because of age limit. A member of the board of directors for many years, he had the welfare of the hospital in his thoughts until the end. The last work he did the day before he died was some notes and suggestions for the continued improvement of the hospital. His efforts resulted in the raising of the standards of work and the keeping of records so that Middlesex Hospital was one of the early hospitals to be granted a grade A rating by the American College of Surgeons. His surgical technique was above criticism and his judgment was unusually accurate. In diagnosis he frequently brought out points overlooked by his colleagues. An example of his thoroughness was exhibited early in his practice. After a difficult delivery one day, he decided he would improve his technique. He went to New York, entered a maternity hospital, and spent three months of special study.

He frequently went to clinics in New York, Chicago, Boston, Johns Hopkins at Baltimore, Crile's Clinic at Cleveland, and Mayo Clinic at Rochester. In the summer of 1935 he was asked by Dr. Mayo to give a paper on any surgical subject he chose to a group of surgeons making a surgical tour of South America. He was a constant attendant of local and neighboring medical societies, and frequently reminded and stimu-



lated others to attend. He was a member of the Central Medical Association, the Middlesex County Medical Association, the Hartford Medical Society, and the Hartford Surgical Society. He was the first doctor of Middlesex County to become a Fellow of the American College of Surgeons.

Dr. Loveland strove to advance the highest ideals of medicine and to lift the torch of knowledge higher. In his chosen field he showed a never tiring search for truth. In his wide varied reading he made frequent notes to discuss with his colleagues, thus sharing with and learning from them. He was always urging others to read and keep up with the recent discoveries. He formed a journal club that met weekly. Each member took a different medical or surgical journal and had to read some article that he found most interesting. These were then discussed by all. His observations always showed a broad deep grasp of the subject. He always encouraged free and friendly criticism of his own cases. Dr. Loveland had a very accurate careful mind that loved to search for truth impassionately. He strove to be impersonal and unemotional in his professional tasks, but this was only because he realized that truth was so easily distorted by emotions. His was a keen, broad, sympathetic understanding. Often when a discussion was waxing hot and the temper of the disputants rising to the point of anger he would quietly interject some sentence into the dispute that brought out a laugh, maybe at his own expense, and the tension evaporated. When a young physician was about to start in practice, Dr. Loveland gave this advice, "Do not let jealousy of your colleagues stand in the way of your practice. You must remember that most patients are ignorant, and do not blame them if they come from other doctors to you, and go to other doctors from you." He had a keen, never failing sense of humor. He believed in getting all the joy you could out of life. His wit was never cutting. One never had to cover up resentment while laughing with him.

He always took an active interest in the support of the Methodist Episcopal Church of which he was a regular attendant and trustee.

In 1931, after thirty-eight years of active practice, Dr. Loveland decided to enrich his mind by travel. With Mrs. Loveland he took a five months vacation, traveling through the Panama Canal to California, Hawaii and Japan. Two years later, in 1933, Dr. and Mrs. Loveland took a five months trip through the Mediterranean Sea, stopping in France, Italy, Greece, Palestine and Egypt. In 1935 the doctor spent three months in England, Ireland, Scotland and Wales where he was very interested in attending clinics and studying the differences of European surgery.

Shortly after his return, in November, 1935, he had a slight cerebral hemorrhage, and from that time he retired from most of his active practice, taking care of only a few intimate friends. He still served as medical examiner of the city of Middletown, a position he had held for ten years.

His active mind was not idle. He devoted himself to writing on scientific subjects some for the laity and some for the medical journals. His papers appeared in "Surgery, Gynecology, and Obstetrics", "The American Journal of Surgery", "The Annals of Surgery", and "The Yale Journal of Biology and Medicine". The title of some of his papers were as follows: 1. A Method of Inducing the Small Intestine to Function during the Course of Acute Diffuse Peritonitis; 2. Advantages of the Left "Stance" in the Operation of Appendectomy; 3. Ovarian Cyst of Great Size: Removal with Recovery; 4. Scotch and Irish Surgery; 5. A Lowered Death Rate from Acute Appendicitis; 6. Reginald Heber Fitz: The Exponent of Appendicitis.

The summer of 1936 and 1937, Dr. and Mrs. Loveland lived at the shore at "Knollwood" in Saybrook, where they had built a summer home. He would come thirty miles to attend the weekly clinics at Middlesex Hospital, and the Exchange Club meetings.

It was at "Knollwood", early Sunday morning, September 12, 1937, that Dr. Loveland had a cerebral hemorrhage in his sleep and passed quietly away.

Carl C. Harvey, M.D.

## • Abstracts •

*Partial deforming spondylitis and trauma. Traumatic rupture of disk as basis of spondylitis. Dr. M. I. Kagen. New Surgical Archives 36:153, No. 6, 1937. Dnepropetrovsk, Soviet, Russia.*

Partial deforming spondylitis produces a form of block between two adjacent or several vertebrae located in the cervical, dorsal or lumbar regions of the spine. The block, as a rule, occurs on the anterior border of the intervertebral space. The bony formations have different shapes such as spurs, half moons, etc. They start from the apophyseal margin of the vertebra and are directed to the apophyseal margin of the adjacent vertebra, either upward or downward. Contrary to the general impression these bony formations never begin from the front cortical plaque. A rupture of the disk is manifested by greater bridging. In severe cases of trauma, when both the disk and the body are injured, the deformity of the vertebral column shows great variety. Gaugel, in his discussion of this subject states that there is no traumatic spondylitis, local or general and that deforming spondylitis is a result of a disease of intervertebral disks. He therefore considers it improbable that deforming spondylitis can be aggravated by trauma. Ewald, Guntz, Mayo, Nidner and others are of the opinion that partial deforming spondylitis is traumatic in origin. Scheurman, Mayo and others maintain that adolescent kyphosis has as its basis, primary injury to the intervertebral disks with the destruction of the body of secondary importance. The apophysis in this disease does not undergo any change in form of structure.



*Arthrodesis of radio-carpal, carpal, carpo-metacarpal and metacarpo-phalangeal joints. Dr. A. I. Kagen. New Surgical Archives 39:154, No. 7, 1937. Dnepropetrovsk, Soviet, Russia.*

Dropped hand, in cases of isolated paralysis of the radial nerve, is a great handicap to the patient from a cosmetic and functional point of view. Hence, these victims gladly consent to an operation which will arthrodesis the radio-carpal joint. Several technics have been offered, but all seem rather complicated. It occurred to the author that the operative technic of Klapp and Kirschner on the dropped foot might be successful in a case of dropped hand. In this operation the bones of the foot are sawed in the frontal plane and, when the flap is raised backward, the sawed bone surfaces are exposed. Then the flap is replaced approximately and drawn forward. The raw surfaces bridge the many joints and give rise to a very firm callus on healing. Applying the same principle to the dropped hand, the author performed the following operation: The incision was made over the middle of the metacarpals and the bones were sawed, forming a flap. On extending the wrist the flap was displaced forward and

the edges of the bones did not meet. Therefore the flap was shortened. Care should be taken not to cut the extensor tendons which may be partially useful. For this purpose, after blunt dissection, the saw was passed under them and the bones cut longitudinally. A strong bony callus developed. Arthrodesis of the metacarpo-phalangeal joints was done in the same manner with fingers flexed to a 160 degree angle with the metacarpals. A splendid result followed.

## • Quarto Notes •

### THE HEART IN PREGNANCY

by Julius Jensen, Ph.D. (in Medicine), University of Minnesota, M.R.C.S. (England) L.R.C.P. (London)

Assistant Professor of Clinical Medicine  
Washington University School of Medicine

371 pages

\$4.75

St. Louis

C. V. Mosby Co.

1938

To deal with this subject more in detail and to show a more extensive range of material from which opinions are crystallized would be difficult to conceive. Twenty-six pages of references are offered by the author. The classification of material is arranged according to the most modern terminology of heart disease and treatment follows the most approved and accepted methods in the two great fields of heart disease and pregnancy.

At first the book seems tedious but the author's thorough method of dealing with each phase of his problem soon becomes entrancing and one is forced to lay down the volume at the end with a feeling of satisfaction that here is a wealth of material available to any practitioner, erudite, lucid, convincing. One impression above all others is gained, that the author's opinions are sane and logical.

Many chapters might be cited for their outstanding features. The discussion on hypertension under "Degenerative Heart Disease and Pregnancy" commends itself in this day when high blood pressure keeps the obstetrician in a state of uncertainty. Co-operation between cardiologist and obstetrician, so essential for the desired good results, is emphasized and the pessimism in the prognosis of cardiac patients during pregnancy is properly evaluated in this volume. It presents data from the leading clinics of the world with an abundance of statistical tables.



### MEN PAST FORTY

A. F. Niemoller, A.B., M.A., B.S.

Author of "American Encyclopedia of Sex", etc.

154 pages, and several illustrations from "Sexology Magazine".

New York

Harvest House

1938

This book is intended largely for popular consumption, the foreword by Gen. Winfield Scott Pugh, M.D., being



addressed to the laity; e.g., "All this information may save you from costly errors and from unnecessary pain or worry." After brief discussion of anatomy, there is a general consideration of the subject and analysis of causes, organic, functional, and, most important, psychic. The most instructive parts of the work are those dealing with treatment of the latter, medications being duly discounted, though a chapter is devoted to the traditional aphrodisiacs and another to organotherapy. Surgical treatment is mentioned and briefly discussed. Though written for the laity, frequent admonitions to seek medical advice are interpolated. It is well worth reading.

D. Beckwith.

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## ORTHOPAEDIC SURGERY

by T. P. McMurray, M.B., M.C.H., F.R.C.S., (Edin.)

458 Pages — \$6.00

Baltimore, Md. Wm. Wood & Co. 1937

This is a first book by an outstanding representative of the Hugh Owen Thomas and Sir Robert Jones School of Orthopaedics of Great Britain. The author was Sir Robert's first assistant for 22 years and on him naturally fell the great surgeon's mantle.

The presentation is purely that of the author's methods with scarcely a mention made of other procedures. There is no bibliography and all methods are presented for what they are worth. You may take them or leave them. In just this manner is the author teaching in The Liverpool School of Medicine, developing a definitely individual approach, almost unique throughout Europe. His free style and direct statement of facts lends a genuine charm to the text. By many he is described as a "diamond in the rough" in contrast to the more profuse, more verbose technique usually met with in an English teacher.

The methods described in his text are representative of the more conservative school with something of the buckle and brace attitude still dominant. He devotes no time to fractures, inferring that he contemplates a second volume in the future.

The text cannot be recommended for those who might expect an erudite discourse on the many complexities of orthopaedic surgery but for those who wish a clear, simple record of the Liverpool technique as epitomized by Thomas, Jones and now McMurray, the treatise should be purchased and read. Drawings and plates are used to a good advantage and help in the clarity of statement.

C. W. Goff

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## SYMPTOMS OF VISCERAL DISEASE

by Francis Marion Pottenger, M.D., F.A.C.P.

Professor of Clinical Medicine

University of Southern California

442 Pages, 87 Illustrations, 10 Color Plates

5th Edition \$5.00

St. Louis C. V. Mosby Co. 1938

The previous edition of this book appeared in 1930.

Since that time great advances have been made in both the investigation of the vegetative nervous system and the application of these studies to the field of clinical medicine. Prof. Pottenger has rewritten nearly every chapter, and one has been added on the vegetative centers of the brain and spinal cord. The specific correlating influence of the endocrines also is given greater stress. The sympathetic and parasympathetic divisions are carefully described as to anatomy, physiology, pharmacology and their reflexes, with tracing of pathways of referred pain, the text being clarified by accurately prepared plates and diagrams, including body segmentation. The importance of the ionic relationships of cells is discussed with particular reference to several well known syndromes. Disease symptoms are divided into those due to: 1. Toxemia. 2. Reflex Action, 3. The Disease Itself, and 4. Marked Progress of the Disease.

The latter half of the monograph deals extensively with the clinical study and interpretation of the viceregenic reflexes of the various organ systems, with particular emphasis on pathologic conditions. A bibliography follows each chapter, and the index is well planned. This work will be an asset to every practitioner of the healing arts.

D. Beckwith.

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## WORKBOOK IN ELEMENTARY DIAGNOSIS FOR TEACHING CLINICAL HISTORY RECORDING AND PHYSICAL DIAGNOSIS

by Logan Clendening, M.D.

Professor Clinical Medicine

University of Kansas

167 pages \$1.50

St. Louis C. V. Mosby Co. 1938

This book was designed for classroom and clinic use of the medical undergraduate and is aptly described by the title. It is an expanded rearrangement of "The Laboratory Notebook Method in Teaching Physical Diagnosis and Clinical History Recording". The student's attention is directed to important diagnostic points and the simplest methods of examination. The greater part of the book is outlined and left blank for notations; e.g., one double page bears the words, "Rectum", "Inspection", "Palpation". There are many sketches of pathologic conditions which for the greater part are so advanced that the patient would doubtless supply the diagnosis if the student couldn't. The book is not intended to supersede more detailed works on physical diagnosis and it will doubtless be an aid to instruction since "writing maketh an exact man".

D. Beckwith

# ROSTER of MEMBERS

## 1938

### FAIRFIELD COUNTY

*President*, ANDREW M. MCQUEENEY, M.D., 1315 Noble Avenue, Bridgeport.  
*Vice-President*, WILLIAM M. STAHL, M.D., 343 Main Street, Danbury.  
*Secretary*, R. HAROLD LOCKHART, 144 Golden Hill Street, Bridgeport.  
*Treasurer*, CLIFTON C. TAYLOR, 881 Lafayette Street, Bridgeport.  
*Councilor*, JAMES DOUGLAS GOLD, 839 Myrtle Avenue, Bridgeport.

#### *Censors*

(One elected annually for a term of three years)

1936 ROBERT J. LYNCH, M.D., 144 Golden Hill Street, Bridgeport.  
 1937 JOHN F. SHEA, M.D., 144 Golden Hill Street, Bridgeport.

1938 JOHN H. STAUB, M.D., 100 South Street, Stamford.  
*Committee on Public Policy and Legislation*  
 (Appointed annually by the President)

SAMUEL F. MULLINS, M.D., 116 Main Street, Danbury, Chairman.

BERKELEY M. PARMELEE, M.D., 144 Golden Hill Street, Bridgeport.

OLIVER L. STRINGFIELD, M.D., 58 South Street, Stamford.

#### *Committee on Medical Ethics and Deportment*

(Two appointed annually by the President for a term of four years)

D. CHESTER BROWN, M.D., 330 Main Street, Danbury, Chairman.

RALPH W. CRANE, M.D., 50 Glenbrook Road, Stamford.

JAMES D. GOLD, M.D., 839 Myrtle Avenue, Bridgeport.

HENRY K. W. KELLOGG, M.D., 725 West Avenue, Norwalk.

DON J. KNOWLTON, M.D., 36 Mason Street, Greenwich.

A. FREDERICK MCGOURTY, M.D., 7 Glenbrook Road, Stamford.

BERKELEY M. PARMELEE, M.D., 144 Golden Hill Street, Bridgeport.

DANIEL C. PATTERSON, M.D., 881 Lafayette Street, Bridgeport.

HENRY C. SHERER, M.D., 1 Washington Street, South Norwalk.

#### *Committee on Medical Economics*

OLIVER L. STRINGFIELD, M.D., 58 South Street, Stamford, Chairman.

STUART H. BOWMAN, M.D., 58 South Street, Stamford.

DAVID L. ELLRICH, M.D., 125 East State Street, Westport.

JAMES D. GOLD, M.D., 839 Myrtle Avenue, Bridgeport.

DANIEL P. GRIFFIN, M.D., 1278 East Main Street, Bridgeport.

BERKELEY M. PARMELEE, M.D., 144 Golden Hill Street, Bridgeport.

MORRIS P. PITOCK, M.D., 570 Post Road, Fairfield.

WILLIAM A. SUNDERLAND, M.D., 158 Deer Hill Avenue, Danbury.

J. LEONARD VICKERS, M.D., 31 Hillside Drive, Greenwich.  
 Annual Meeting, Second Tuesday in April, at Bridgeport.

Semi-Annual Meeting, First Wednesday in October.

### BETHEL

1925 Moore, Homer Franklin, 4 Grand ave.

1938 Trimpert, Albert J., 155 Greenwood ave.

1899 Wight, George DeWitt, 235 Greenwood ave.

### BRIDGEPORT

1933 Adzima, Joseph Matthew, 409 Noble ave.

1932 Alpert, Max, 881 Lafayette.

1935 Antell, Maxwell Joseph, 1690 Barnum ave.

1929 Apsel, Abraham, 1620 Fairfield ave.

1928 Backer, Marcus, 881 Lafayette.

1916 Banks, Daniel Tony, 385 Barnum ave.

1913 Beaudry, Joseph Horace, 109 Rowsley.

1913 Bernstein, Abraham, 472 State.

1900 Blank, Elmer Francis, 387 Noble ave.

1935 Bogin, Maxwell, 144 Golden Hill.

1921 Booe, John Grady, 144 Golden Hill.

1927 Brodsky, Michael Emanuel, 881 Lafayette.

1938 Buckley, John William, 778 Washington ave.

1923 Buckmiller, Frank Charles, 1119 Stratford ave.

1919 Calvin, Claudius Virgil, 144 Golden Hill.

1920 Carroll, Francis Patrick, 919 Fairfield ave.

1932 Carroll, Philip Roger, Jr., 1131 Noble ave.

1920 Cheney, Maurice Lionel, 144 Golden Hill.

1925 Cohen, Joseph, 1130 Stratford ave.

1924 Conklin, Cornelius Stephen, 468 Clinton ave.

1936 Connors, Edwin Robert, 416 Boston ave.

1935 Creaturo, Nicholas Edward, 1286 East Main.

1913 Curley, William Henry, 881 Lafayette.

1908 Curran, Philip John, 144 Golden Hill.

1894 Day, Fessenden Lorenzo, 819 Myrtle ave.

1935 Del Vecchio, Leonard Frederick, 763 Noble ave.

1920 DeLuca, Horatio Roger, 881 Lafayette.

1921 De Witt, Edward Nicholas, 881 Lafayette.

1937 Eimas, Aaron, 881 Lafayette.

1913 Finkelstone, Benjamin Brooks, 144 Golden Hill.

1897 Fleck, Harry Willard, 897 Lafayette.

1938 Foley, Francis Xavier, 2992 Main.

1908 Formichella, Giovanni, 534 E. Washington ave.

This roll is corrected to March 1, 1938.

Date preceding name indicates year of election to or reinstatement in the County Association.

Asterisk preceding name indicates membership in the American Medical Association is credited to another constituent association.



- 1916 Gade, Carl Johannes, 144 Golden Hill.  
 1929 Garbelnick, David Abraham, 1102 E. Main.  
 1907 Gardner, Charles Wesley, 144 Golden Hill.  
 1916 Garlick, George Burroughs, 144 Golden Hill.  
 1916 Gilday, James Lowry, 819 State.  
 1927 Gildea, Mark Andrew, 881 Lafayette.  
 1895 Gold, James Douglas, 839 Myrtle ave.  
 1927 Greenspun, David Stoven, 144 Golden Hill.  
 1916 Griffin, Daniel Patrick, 1278 E. Main.  
 1923 Griswold, Arthur Sheldon, 144 Golden Hill.  
 1928 Griswold, Crawford, 144 Golden Hill.  
 1920 Groark, Owen James, 881 Lafayette.  
 1913 Hale, Fraray, 144 Golden Hill.  
 1937 Harper, Paul, 144 Golden Hill.  
 1928 Harshbarger, Isaac Long, 144 Golden Hill.  
 1920 Havey, Leroy Austin, 144 Golden Hill.  
 1938 Hennessey, Joseph Gerard, 108 Rowsley.  
 1915 Hippolitus, Paul DiFrancesca, 255 Barnum ave.  
 1930 Hooper, G. Herbert, 1643 E. Main.  
 1933 Horn, Benjamin, 1278 E. Main.  
 1916 Horn, Martin Irving, 915 North ave.  
 1920 Howard, Joseph Henry, 144 Golden Hill.  
 1938 Hurlburt, Edward Glens, 610 Laurel ave.  
 1912 Hyde, Charles Elias, 881 Lafayette.  
 1932 James, Arthur Gregory Boswell, 1424 Stratford ave.  
 1932 Kalman, Eugene, 1389 Fairfield ave.  
 1927 Keegan, Daniel Francis, 144 Golden Hill.  
 1938 Kemp, Edward Philip, 881 Lafayette.  
 1924 Kneale, Halford Benson, 144 Golden Hill.  
 1924 Kornblut, Alfred, 1539 Fairfield ave.  
 1913 Lambert, Henry Bertram, 144 Golden Hill.  
 1926 Laszlo, Andras E., 881 Lafayette.  
 1925 Levenson, Albert, 881 Lafayette.  
 1904 Leverty, Charles Joseph, 528 Park pl.  
 1933 Levinsky, Maurice, 480 Noble ave.  
 1927 Levy, Maurice Noel, 480 Clinton ave.  
 1931 Lockhart, Reuben Harold, 144 Golden Hill.  
 1887 Lynch, John Charles, 826 Myrtle ave.  
 1904 Lynch, Robert Joseph, 144 Golden Hill.  
 1932 Margulis, Abraham Bernard, 171 Harrison.  
 1922 Maxwell, John Alphonsus, 919 Stratford ave.  
 1938 McLean, Thomas Smith, Jr., 1403 Boston ave.  
 1923 McManus, James Patrick, 1390 E. Main.  
 1913 McQueeney, Andrew Michael, 1315 Noble ave.  
 1931 Meyer, Fritz Martin, 144 Golden Hill.  
 1892 Miles, Henry Shillingford, 144 Golden Hill.  
 1932 Mooney, Sydney, 1116 Stratford ave.  
 1936 Murray, William J. C., 784 Noble ave.  
 1901 Nettleton, Irving LaField, 775 Washington ave.  
 1919 Neumann, Harry Aaron, 588 State.  
 1937 Newton, Louis, 840 Howard ave.  
 1925 Nichols, Charles William, 1221 Stratford ave.  
 1920 Nickum, John Stanley, 144 Golden Hill.  
 1936 Nolan, John Francis, 1260 E. Main.  
 1925 OBrien, Francis James, 74 Circular ave.  
 1920 O'Connell, John Gabriel, 144 Golden Hill.  
 1894 O'Hara, William James Aloysius, 361 Barnum ave.  
 1921 Parmelee, Berkley Melvin, 144 Golden Hill.  
 1937 Pascal, Thomas J., 385 Noble ave.  
 1920 Pasuth, Bartholomew Charles, 534 Connecticut ave.  
 1909 Patterson, Daniel Cleveland, 881 Lafayette.  
 1913 Peters, Henry LeBaron, 763 Park ave.  
 1930 Pileggi, Peter, 634 Washington ave.  
 1935 Plukas, Joseph Martin, 339 South ave.  
 1933 Quatrano, Joseph Charles, 835 Fairfield ave.  
 1916 Quinn, John Francis, 144 Golden Hill.  
 1916 Reich, Upton Sharets, 2095 Main.  
 1938 Ribner, Harold, 2683 Fairfield ave.  
 1918 Roberts, Edward Russell, 144 Golden Hill.  
 1913 Roche, Thomas Joseph, 1815 Noble ave.  
 1936 Rockwell, Alice Elizabeth, 1775 Noble ave.  
 1913 Rowe, Michael James, 431 Washington ave.  
 1913 Sansone, Nicola Maria, 519 Pembroke.  
 1928 Sekerak, Arthur Joseph, 408 Barnum ave.  
 1938 Sekerak, Raymond Andrew, 1458 E. Main.  
 1938 Sekerak, Richard John, 1458 E. Main.  
 1938 Shea, Cornelius John 26 Vine.  
 1913 Shea, John Francis, 144 Golden Hill.  
 1937 Shea, Richard O'Brien, Welfare Building.  
 1903 Smith, Edward Dorland, 881 Lafayette.  
 1935 Smith, Joseph Jacob, 300 Stratfield rd.  
 1919 Smith, Stanton Reinhart, 144 Golden Hill.  
 1913 Smykowski, Bronislaw Louis, 405 Barnum ave.  
 1930 Sollosy, Alexander, 645 Bostwick ave.  
 1909 Sprague, Charles Harry, 29 Hanover.  
 1920 Taylor, Clifton Clark, 881 Lafayette.  
 1938 Ter Kuile, Roger Couvelle, 881 Lafayette.  
 1925 Tolk, Nathan Robert, 558 Clinton ave.  
 1895 Tukey, Frank Martin, 144 Golden Hill.  
 1929 Turchik, Frank, 1831 Barnum ave.  
 1934 Tutles, Alexander James, 2180 Main.  
 1932 Uvitsky, Irving Harry, 3101 Main.  
 1923 Walsh, James Francis, 583 Noble ave.  
 1903 Warner, George Howell, 144 Golden Hill.  
 1904 Waterhouse, Henry Edwin, 144 Golden Hill.  
 1920 Watts, Joseph Francis, 881 Lafayette.  
 1913 Weadon, William Lee, 144 Golden Hill.  
 1922 Weise, Ellwood Carl, 144 Golden Hill.  
 1914 Weldon, Edwin Bernard, 144 Golden Hill.  
 1936 Yeager, Charles Frederick, 2139 E. Main.  
 1935 Zaur, Israel Sidney, 2744 Main.

## DANBURY

- 1929 Amos, Isadore Louis, 317 Main.  
 1929 Booth, John Dibble, 173 Main.  
 1902 Bronson, William Thaddeus, 41 West.  
 1888 Brown, David Chester, 330 Main.  
 1928 Delohery, Cornelius Leo, 65 Main.  
 1935 Driscoll, Jerome James, 206 Main.  
 1937 Eckert, George Robert, 394 Main.  
 1931 Gaffney, John James, 179 Main.  
 1931 Genovese, Frank Thomas, 172 White.  
 1930 Gibson, Donald Farnham, 75 West.  
 1929 Goldys, Frank Max, 209 Main.  
 1897 Gordon, William Francis, 26 West.  
 1912 Moore, Howard Delano, 203 Main.  
 1912 Mullins, Samuel Frederick, 116 Main.  
 1937 Murphy, James Joseph, 147 Main.  
 1937 Rogol, Louis, 229 Main.  
 1926 Selleck, Nathaniel Benedict, 215 Main.  
 1913 Smith, Arthur Charles, 246 Main.  
 1920 Stahl, William Martin, 343 Main.  
 1884 Stratton, Edward Augustus, 173 Main.  
 1907 Sunderland, Paul Ulysses, 160 Deer Hill ave.

- 1929 Sunderland, William Alexander, 158 Deer Hill ave.  
1932 Tomaino, Felix Francis, 39 West.

## DARIEN

- 1937 Huntington, Frederic Sargent, Middlesex and Hol-  
low Tree Ridge Roads  
1938 VanTassel, Walter, 194 Post rd.

## FAIRFIELD

- 1928 Biehn, Sidney Lister, 22 Reef rd.  
1938 Fulstow, Marjorie, 570 Post rd.  
1938 Keys, Robert C., 672 Post rd.  
1932 Pitock, Morris Philip, 570 Post rd.  
1925 Poole, Lawrence Earl, 100 Reef rd.

## SOUTHPORT

- 1938 Mathews, Frank Pelletreau, Main st.

## GREENWICH

- 1935 Amoss, Harold Lindsey, 21 Field Point rd.  
1905 Burke, William, 153 Mason  
1938 Carter, Gray, 29 Hillside ave.  
1934 Clark, J. Bayard, 290 Field Point rd.  
1904 Clarke, John Alexander, 67 Mason.  
1933 Close, John Frederick, 66 Milbank ave.  
1937 Hawthorne, Julian, Greenwich Towers.  
1937 Craighill, Margaret D., 43 Maple ave.  
1937 Gates, Aaron Billings, 305 Millbank ave.  
1934 Hitchcock, Freeman St. Clair, 275 N. Maple ave.  
1927 Knapp, Charles Stanley, 18 Field Point rd.  
1918 Knapp, Charles Whittemore, 43 Maple ave.  
1916 Knowlton, Donald Jerome, 36 Mason.  
1933 Lockwood, Jane, 259 E. Putnam ave.  
1932 \*McCreery, John Alexander, 43 Maple ave.  
1935 Rogers, Robert Page, 111 North.  
1937 Stroebe, Joseph E., 34 Benedict pl.  
1937 Thompson, Sidney Attilio, 161 Mason.  
1934 Tinkess, Donald Ewing, Greenwich Towers.  
1933 Vickers, James Leonard, 31 Hillside Drive.

## COS COB

- 1912 Bergin, Thomas Joseph, 2 Mead ave.

## OLD GREENWICH

- 1914 Austin, Albert Elmer, 13 Arcadia rd.  
1926 Kaprielian, Haigazoon Kruger, 312 Sound Beach  
ave. Also Stamford.  
1936 Kelly, James Colman Francis, 282 Sound Beach ave.

## MONROE

## STEPNEY DEPOT

- 1912 Wales, Francis Joseph.

## NEW CANAAN

- 1937 Abrahams, Meyer, 191 South.  
1933 Bucciarelli, John Anthony, 93 East ave.  
1932 \*Lowsley, Oswald Swinney, "Twin Knolls" 29 Cherry  
1908 O'Shaughnessy, Edmund Joseph, 29 Cherry.  
1935 Terhune, William Barclay, Silver Hill.  
1931 Wadsworth, Ruth Flanigen, Smith Ridge.

## NEWTOWN

- 1938 Dean, Stanley Rochelle, Fairfield State Hospital.  
1927 Desmond, Waldo Fairfield.  
1935 Grout, Stillman Proctor, Fairfield State Hospital.  
1936 Moore, Clifford Douglas, Fairfield State Hospital.

## SANDY HOOK

- 1937 Egee, J. Benton.  
1933 George, John Joseph.

## NORWALK

- 1912 Bryon, Benn Adelmer, 344 Main ave.  
1933 Chipman, Sidney Shaw, 520 West ave.  
1938 Gorham, Grace Viola, 64 Wall.  
1915 Kellogg, Henry Kirke White, 725 West ave.  
1930 Miller, John, 711 West ave.  
1933 Moore, Robert Lynn, 520 West ave.  
1938 Northrop, Robert Arthur, 64 Wall.  
1938 Padula, Ralph Domenick, 502 West ave.  
1929 Patterson, Frederic Arthur, 520 West ave.  
1938 Perdue, Robert E., 625 West ave.  
1930 Perkins, Charles Winfield, 520 West ave.  
1920 Perry, Mabelle Jeane, 676 West ave.  
1938 Piasecki, Joseph L., 520 West ave.  
1917 Powers, John Thomas Haliburton, 471 West ave.  
1928 Scanlon, Thomas Francis, 394 West ave.  
1934 Stone, William Stephen, Chestnut Hill.  
1929 Tracy, Edward John, 637 West ave.  
1890 Tracey, William Joseph, 637 West ave.  
1920 Tracey, William Wallace, 637 West ave.  
1904 Turner, Arthur Robert, 701 West ave.  
1938 Vollmer, John William, 654 West ave.  
1934 Wallace, Victor George Henry, 520 West ave.  
1938 Weinstein, Nathan, 463 West ave.

## SOUTH NORWALK

- 1936 Beck, Eugene Cornelius, 75 So. Main.  
1918 Bradley, Theron Robert, 9 Washington.  
1922 Fawcett, George Gifford, 8 Washington.  
1938 Giuliano, Louis Augustine, 111 West ave.  
1923 McMahon, William Henry, Jr., 13 Washington.  
1938 Hunkemier, Edna, 75 So. Main.  
1938 Paris, Marcus, 64 So. Main.  
1938 Rosenthal, Isidor, 72 So. Main.  
1896 Sherer, Henry Clifford, 1 Washington.  
1931 Simon, Louis Goodwin, 59 South Main.  
1937 Stietzel, Eric Ernest, 19 Franklin.  
1923 Wolfe, Robert Milton, 61 South Main.

## REDDING

- 1896 Smith, Ernest Herman.

## RIDGEFIELD

- 1937 Bell, Joseph Sloane, 54 Main.  
1938 Genovese, Serafino, 104 Main.  
1926 Lowe, Russell Walter, 126 Main.  
1927 Woodford, Francis Bowditch, 62 Main.

## SHELTON

- 1912 Black, John Eugene, 40 White.  
1917 Finn, Edward James, 452 Howe ave.  
1930 Gaetz, Thomas Harold, "Laurel Heights."  
1937 Howlett, Kirby Smith, Jr., "Laurel Heights."  
1925 Lynch, Edward James, "Laurel Heights."  
1895 Randall, William Sherman, 241 Coram ave.  
1919 Williams, Fred S., Booth Hill rd.

## STAMFORD

- 1937 Awdziejewicz, Francis J., 295 Atlantic.  
1936 Bannon, Frederick Michael, 65 South.  
1907 Barnes, Frank Haslehurst, Dr. Barnes' Sanitarium.



- 1927 Bissell, Addison Hayes, 65 South.  
 1926 Bowman, Stuart Howard, 58 South.  
 1935 Carpenter, Robert Morse, 636 Sumner.  
 1937 Carwin, Joseph L., 188 W. Main.  
 1904 Cloonan, John Joseph, 37 South.  
 1937 Costanzo, James Joseph, 58 South.  
 1909 Crane, Ralph William, 50 Glenbrook rd.  
 1937 Cunningham, Robert D. M., 123 Prospect.  
 1934 D'Andrea, Frank Henry, 29 South.  
 1909 Dichter, Charles Levi, 33 Forest.  
 1935 Dichter, Irving Samuel, 24 Suburban ave.  
 1937 Di Francesco, Lindo Peter, 29 South.  
 1937 Dorion, Robinson Harry, 449 Atlantic.  
 1922 Fear, Raymond Durstan, 52 South.  
 1933 Fincke, Charles Louis, 1 Atlantic.  
 1937 Fine, Barnet, 49 Grove.  
 1936 Fine, Joseph, 96 Main.  
 1931 Fiske, Madeline, 29 Suburban ave.  
 1934 Friedberg, Solomon, 21 Forest.  
 1931 Gandy, Raymond Alfred, 57 Broad.  
 1913 Gandy, Raymond Reeves, 57 Broad.  
 1931 Giles, Newell Walton, 1 Atlantic.  
 1909 Godfrey, William Truitt, 65 South.  
 1938 Grant, A. Nathaniel, 115 West Main.  
 1929 Hamilton, John Stewart Marshall, 88 South.  
 1937 Harrison, Francis Murphy, 512 Atlantic.  
 1908 Harrison, John Francis, 512 Atlantic.  
 1916 Henderson, Alfred Collard, 39 Broad.  
 1935 Henderson, Jean, 55 Glenbrook rd.  
 1901 Hertzberg, George Robert Reinhold, 40 South.  
 1930 Hertzberg, Reinhold Frederick, 227 Bedford.  
 1938 Hewitt, Alfred E., 510 Summer.  
 1937 Hopper, Edward Bernard, 58 South.  
 1937 Hymovich, Leo, 74 Park pl.  
 1929 Keddy, Russell Alfred, 65 South.  
 1938 Kezel, Albert Patrick C., 241 Fairfield ave.  
 1904 MacLean, Donald Robert, 31 West Park pl.  
 1934 Malloy, Edward Francis, 63 South.  
 1933 McFarland, Frederick William, 65 South.  
 1928 McGourty, Andrew Frederick, 7 Glenbrook rd.  
 1935 McGourty, David Philip, 25 Bedford.  
 1924 McMahan, Francis Cash, 62 Suburban ave.  
 1934 Meade, Charles Havelock Beverly, 433 Atlantic.  
 1930 Meschter, Eugene Funk, Yale & Towne Co.  
 1938 Murphy, Charles Anthony, 65 South.  
 1931 Murray, Henry Joseph, 53 South.  
 1911 Nemoitin, Jacob, 96 Main.  
 1928 Paul, Voyle Abrams, 58 South.  
 1938 Rawls, Edward Cotton, 1 Atlantic.  
 1929 Resnik, William Harry, 65 South.  
 1928 Root, Stella Quimby, 39 Broad.  
 1936 Rose, Samuel A., 25 Bedford.  
 1937 Rowell, E. Everett, 104 South.  
 1929 Rynard, William Morvel Wesley, 29 South.  
 1929 Salmond, Paul H., Stamford Hall.  
 1932 \*Schmidt, Norman Louis, 58 South.  
 1930 Sette, Alfred Joseph, 308 Atlantic.  
 1929 Shermak, Joseph Vincent, 162 Bedford.  
 1909 Shirk, Samuel Martin, 218 Bedford.  
 1936 Shockley, Francis Milton, Stamford Hall.  
 1917 Smith, William Earl, 65 South.  
 1934 Starrett, Jay Ellis, 184 Bedford.  
 1907 Staub, John Howard, 100 South.  
 1931 Stone, Merlin Jones, 76 Glenbrook rd. Also 161  
 Mason, Greenwich.  
 1920 Stringfield, Oliver Linwood, 58 South.  
 1931 Turnley, William Henry, 322 Main.  
 1934 Turton, Effie Howe, 90 Prospect.  
 1937 Weaver, Bruce S., 77 South.  
 1928 White, William Beverly, 322 Main.  
 1930 Wilson, Leo Earl, 87 South.
- GLENBROOK
- 1938 O'Meara, Francis Patrick, 1 Elm pl.  
 1885 Phillips, Alfred Noroton, Middlesex rd.
- SPRINGDALE
- 1937 Diamond, Edward H., 990 Hope.
- STRATFORD
- 1938 Ashcroft, Allan Davis, 3044 Main.  
 1938 Findorak, Francis George, 1882 Barnum ave.  
 1936 Friedman, Nathan H., 891 E. Broadway.  
 1927 Haberlin, Chester Edward, 2921 Main.  
 1924 Heidger, Luther Caldwell, 972 E. Broadway.  
 1929 Hennessey, Edward Henry Joseph, 2390 Main.  
 1934 Maher, John Rodden, 2184 Main.  
 1931 Oesau, Harold Thomas, 1949 Main.  
 1937 Strayer, Estella M., 3486 Main.  
 1935 Strayer, Luther Milton, Jr., 3486 Main.
- TRUMBULL
- LONG HILL
- 1912 Smith, George Arthur.  
 1934 Wehger, Roland Theodore.
- WESTPORT
- 1904 Bill, Philip Worcester, 40 Thomas rd.  
 1930 Ellrich, David Lionel, 125 E. State.  
 1932 Gillette, Claude Wesley, 110 Charles.  
 1937 Hawley, George Waller, Box 710, Long Lots rd.  
 1937 Lynch, Hubbard, Evergreen ave.  
 1934 Morgan, William Oliver, 193 Main.  
 1927 Munson, William Russell, 20 Church lane.  
 1937 Nespor, Robert Venzel, 89 Main.  
 1925 Phillips, Harry Shaw, 44 E. Church.  
 1936 Teuscher, William P. 18 Compo rd.
- GREENS FARMS
- 1934 Paul, Francis, Hall-Brooke Sanitarium.  
 1934 Smith, Stephen Munro, Box 31.
- OUT OF COUNTY
- 1921 Coyle, Anna Elizabeth Mulheron, 16 Church st.,  
 Windsor Locks.  
 1937 Geck, Otto Francis, Pomfret Center.  
 1933 Maddren, William Harvey, 126 Pine st., Freeport,  
 L. L.  
 1937 Hoskins, Frederick Smith, Republic bldg., Cleve-  
 land, Ohio.  
 1907 Pratt, Nathan Tolles, Old Saybrook.  
 1936 Sowell, Norman B., Apt. 1, Fuller Gardens, Ossin-  
 ing, N. Y.  
 1937 Millet, John Alfred Parson, 770 Park ave., N. Y. C.

## HARTFORD COUNTY

*President*, JAMES R. MILLER, M.D., 179 Allyn Street, Hartford.

*Vice-President*, HENRY N. COSTELLO, M.D., 179 Allyn Street, Hartford.

*Secretary*, FRANK T. OBERG, M.D., 689 Asylum Avenue, Hartford.

*Councilor*, H. GILDERSLEEVE JARVIS, M.D., 38 Prospect Street, Hartford.

*Business Office*, 38 Prospect Street, Hartford.

*Censors*

(One elected annually for a term of three years)

1936 ARTHUR B. LANDRY, M.D., 50 Farmington Avenue, Hartford.

1937 JOHN C. WHITE, M.D., 55 West Main Street, New Britain.

1938 MAURICE T. ROOT, M.D., 51 North Main Street, West Hartford.

*Committee on Public Policy and Legislation*

(State Committee member and one elected annually for a term of two years)

1937 D. C. Y. MOORE, M.D., 689 Main Street, South Manchester.

1938 BENJAMIN B. ROBBINS, 47 Main Street, Bristol.

*Committee on Medical Ethics and Deportment*

(Two appointed annually by the President for a term of three years)

1936 BENJAMIN B. ROBBINS, M.D., 47 Main Street, Bristol.

1936 EDWARD J. TURBERT, M.D., 703 Asylum Avenue, Hartford.

1937 ORAN A. MOSER, M.D., Elm Street, Rocky Hill.

1937 HOWARD A. BOYD, M.D., 937 Main Street, Manchester.

1938 WILLIAM F. FLANAGAN, M.D., 55 West Main Street, New Britain.

1938 C. BREWSTER BRAINARD, M.D., 50 Farmington Avenue, Hartford.

THE PRESIDENT OF THE COUNTY MEDICAL ASSOCIATION.

THE SECRETARY OF THE COUNTY MEDICAL ASSOCIATION.

Annual Meeting, First Tuesday in April.

Semi-Annual Meeting, Fourth Tuesday in October.

## BERLIN

1908 Hodgson, Thomas Cady, Worthington Ridge.

## KENSINGTON

1938 LoVetere, Angelo Arthur, 528 Farmington.

## BLOOMFIELD

1933 Thompson, Maurice Bainton, Wintonbury ave.

## BRISTOL

1930 Appell, Paul Harry, 110 South.

1934 Beatrice, Alphonse Anthony, 321 Main.

1936 Bird, Frederick Stanford, 9 N. Main.

1932 Borkowski, Boleslaus Joseph, 4 School.

1900 Brackett, Arthur Stone, 321 Main.

1923 Curtiss, Mabel Eloise, 81 Main.

1934 Donohue, Bartholomew Francis, 481 N. Main.

1935 Flynn, William Henry, 170 Main.

1925 Gore, Michael Alvord, 321 Main.

1937 Hall, Martin Irving, 269 N. Main.

1921 Hanrahan, William Richard, 157 Main.

1928 LaPlume, Albert Antonio, 218 West.

1929 Nestos, Peter Alexander, 63 Main.

1935 Papa, John Smith, 124 Main.

1921 Park, Paul Archibald, 133 Main.

1921 Richardson, Ralph Augustus, 4 School.

1922 Robbins, Benjamin Bissell, 47 Main.

1935 Siliciano, Raoul Andrew Victorius, 9 No. Main.

1936 Stevenson, William Robb, Bristol Hospital.

1909 Whipple, Benedict Nolasco, 45 N. Main.

1934 Winters, Herman W., 405 N. Main.

## CANTON

## COLLINSVILLE

1906 Cox, Ralph Benjamin.

## EAST HARTFORD

1931 Brecker, Francis Wellington, 9 Burnside ave.

1937 Cornwell, Philip M., 970 Main.

1936 Gallivan, John Norman, 74 Connecticut blvd.

1927 Goddard, Harvey Burton, 970 Main.

1923 Haylett, Howard Bulkeley, 1109 Main.

1933 Houle, Raymond Theodore, 1010 Main.

1936 Lewis, Samuel Donald, 617 Burnside ave.

1934 Lublin, Raymond David, 1011 Main.

1937 McCue, Martin Patrick, 1429 Main.

1916 Onderdonk, Harrie Jay, 61 Richard rd.

1930 Taylor, Andrew, 7 Woodbridge.

## EAST WINDSOR

## BROAD BROOK

1923 Robinson, Wilfred John Thomas, Main.

1937 Maslak, Rudolph, South Main., Warehouse Point.

## ENFIELD

## HAZARDVILLE

1906 Bridge, John Law, School.

1923 Shepherd, William Gordon, Main.

## THOMPSONVILLE

1937 Bloom, David Irving, 134 Pearl.

1937 Dignam, Barnard Stephen, 59 Pearl.

1906 Dowd, Michael Joseph, 25 Church.

1932 Fancher, Henry Wilson, 1070 Enfield.

1932 McHugh, John Francis, 29 Central.

1916 Simonton, Frank Forester, 75 N. Main.

1928 Stein, Albert, 144 Pearl.

1917 Vail, Thornton Edwin, 124 Main.

## FARMINGTON

1933 Bunnell, Walls Willard, Main.

1933 Ellis, Francis Duffy, Jr., Elm Tree Inn.

1937 Shaffer, Thomas Eugene, Main.

## GLASTONBURY

1933 Earle, Benjamin Baylis, 404 Main.

1935 Griswold, Edwin Monroe, 419 Main.

1924 Whittles, Lee Jay, 351 Main.

## SOUTH GLASTONBURY

1908 Ward, James Ward, Station 57.

## GRANBY

1923 Pendleton, Ernest Raymond.



## HARTFORD

- 1927 Allen, Wilmar Mason, 20 S. Hudson.  
 1937 Andrews, Egbert Merrill, 648 Asylum.  
 1935 Angus, Leslie Robert, 200 Retreat ave.  
 1914 Deming, Clinton Demas, 179 Allyn.  
 1914 Deming, Edward Adams, 715 Asylum ave.  
 1931 DePasquale, Francis Lawrence, 1026 Main.  
 1937 DePasquale, John Anthony, 525 Main.  
 1934 DeVito, Michael Joseph, 1039 Main.  
 1931 Dion, Asa Joseph, 207 Washington.  
 1934 Donner, Samuel, 99 Pratt.  
 1938 Donovan, William Francis, 47 Main.  
 1937 Duffy, Leo Thomas, 3 New Britain ave.  
 1923 Dunne, Richard Edwin, 50 Farmington ave.  
 1916 Dwyer, William, 18 Asylum.  
 1927 Elliott, Kirkor Gregory, 631 Park.  
 1937 Ellison, Frederick Speirs, 50 Farmington ave.  
 1895 Elmer, Edward Oliver, 1731 Park.  
 1914 Emmett, Francis Arthur, 410 Asylum.  
 1937 Fagan, Francis X., 68 Pratt.  
 1933 Farland, Victor Louis, 54 Pratt.  
 1919 Fay, William James, 179 Allyn.  
 1929 Felty, Augustus R., 846 Asylum ave.  
 1934 Finley, George Clark, 50 Farmington ave.  
 1913 Flaherty, Claude Vincent, 50 Farmington ave.  
 1931 Friery, Clarence Milton, 110 Greenfield.  
 1919 Furniss, Henry Watson, 1335 Main.  
 1927 Gaberman, David, 179 Allyn.  
 1937 Galinsky, David, 853 Wethersfield ave.  
 1921 Garland, Robert Bernard, 597 Broad.  
 1898 Gill, Michael Henry, 36 Pearl.  
 1922 Gills, William Lee, 179 Allyn.  
 1934 Giorgio, Nicholas Anthony, 61 Edwards.  
 1937 Giuliano, Sebastian, 468 Franklin ave.  
 1935 Glass, George Courtenay, 476 Farmington ave.  
 1934 Glaubman, Henry Mitchell, 20 Lenox.  
 1926 Glazier, James Raymond, 179 Allyn.  
 1927 Goff, Charles Weer, 30 Farmington ave.  
 1936 Gold, Louis Henry, 715 Asylum ave.  
 1930 Goldenberg, Jacob Joseph, 629 Albany ave.  
 1933 Goodell, Robert Alvan, 79 Elm.  
 1900 Goodrich, Charles Augustus, 5 Haynes.  
 1919 Gosselin, George Adeler, 50 Farmington ave.  
 1935 Gould, Max Martin, 136 Main.  
 1923 Grau, Leroy Charles, 700 Main.  
 1923 Graves, James Chapman, 700 Main.  
 1937 Green, William Frederick, 63 Webster.  
 1909 Griswold, Arthur Heywood, 179 Allyn.  
 1924 Griswold, Matthew Hammond, 165 Capitol ave.  
 1921 Grosvenor, Frank Livingstone, 700 Main.  
 1930 Hall, Llewellyn, 79 Elm.  
 1913 Harrington, Amos Thomson, 43 Farmington ave.  
 1936 Harvey, Daniel Foster, 153 W. Main.  
 1938 Harris, Louis David, 242 Trumbull.  
 1930 Hastings, Louis Pease, 370 Collins.  
 1908 Hatheway, Clarence Morris, 110 High.  
 1937 Hazen, Donald Robert, 50 Farmington ave.  
 1907 Hepburn, Thomas Norval, 179 Allyn.  
 1930 Heyman, Joseph, 650 Main.  
 1934 Hirschfeld, Otto Max, 1037 Albany ave.  
 1931 Hirshberg, Manuel Shelton, 650 Main.  
 1925 Hoffman, Charles Curtis, 700 Main.  
 1924 Hogan, Walter Louis, 750 Main.  
 1929 Holt, Kerchival Rogers, 50 Farmington ave.  
 1930 Holtz, Raymond Sidney, 242 Trumbull.  
 1934 Horning, Benjamin Graham, 550 Main.  
 1935 Hough, Perry Tyler, 179 Beacon.  
 1922 Howe, Glover Elbridge, 179 Allyn.  
 1936 Hurwitz, George Hillel, 75 Pearl.  
 1920 Hurwitz, Herman Max, 242 Trumbull.  
 1917 Hutchison, James Elder, 125 Trumbull.  
 1924 Ingraham, A. Elizabeth, 30 Farmington ave.  
 1937 Irving, James Grant, 151 Farmington ave.  
 1934 James, Lewis Paul, 68 Pratt.  
 1912 Jarvis, Henry Gildersleeve, 179 Allyn.  
 1930 Jones, Frank Stafford, 179 Allyn.  
 1928 Kalin, Jacob Isaac, 286 Church.  
 1927 Antupit, Louis, 242 Trumbull.  
 1936 Apter, Harry, 1453 Main.  
 1932 Arons, Milton Robert, 1061 Albany ave.  
 1904 Backus, Harold Simeon, 99 Pratt.  
 1934 Bailey, Harry, 242 Trumbull.  
 1913 Bailey, Neil Herbert, 550 Main.  
 1923 Bancroft, Harold Arthur, 179 Allyn.  
 1933 Bausch, Carl Philipp, 36 Pearl.  
 1886 Beach, Charles Coffing, 54 Woodland.  
 1907 Beach, Charles Thomas, 50 Farmington ave.  
 1929 Beatman, Israel, 650 Main.  
 1934 Beizer, Edmund, 1711 Park.  
 1894 Bell, George Newton, 179 Allyn.  
 1934 Bernstein, Dwight Joseph, 136 Blue Hills ave.  
 1923 Bestor, Eugene Leonard, 36 Pearl.  
 1926 Bidgood, Charles Young, 179 Allyn.  
 1936 Bingham, Charles Tiffany, 37 Forest.  
 1913 Biram, James Harrington, 179 Allyn.  
 1913 Birdsong, Julian Lee, 435 Farmington ave.  
 1907 Blair, Edward Holden, 43 Farmington ave.  
 1897 Botsford, Charles Porter, 219 Collins.  
 1903 Brainard, Clifford Brewster, 50 Farmington ave.  
 1916 Branon, Anthony William, 179 Allyn.  
 1912 Brayton, Howard Wheaton, 179 Allyn.  
 1931 Brewer, Timothy Francis, 211 Church.  
 1929 Buck, Burdette Jay, 50 Farmington ave.  
 1931 Buckley, Richard Cotter, 683 Asylum ave.  
 1936 Burgdorf, Alfred Louis, 18 Townley.  
 1932 Burlingame, Clarence Charles, 200 Retreat ave.  
 1937 Burns, Maudie Marie, State Office building.  
 1928 Butler, Nicholas George, 50 Farmington ave.  
 1931 Calverley, Eleanor Jane Taylor, 143 Sigourney.  
 1914 Cantarow, Daniel, 10 Garden.  
 1934 Capiello, Silvestro, 97 Vine.  
 1933 Carey, Thomas Cornelius, 50 Farmington ave.  
 1931 Carniglia, Ettore Francis, 50 Farmington ave.  
 1929 Carroll, James Edward, 220 Farmington ave.  
 1915 Carter, Earle Buell, 99 Pratt.  
 1930 Caulfield, Ernest Joseph, 683 Asylum ave.  
 1933 Cenci, Vincent Peter, 242 Trumbull.  
 1935 Clarke, Ralph deBallard, "Cedarcrest".  
 1922 Clason, Freeman Pell, 179 Allyn.  
 1905 Clifton, Harry Colman, 30 Farmington ave.  
 1931 Climan, Max, 242 Trumbull.  
 1896 Cochran, Levi Bennett, 50 Farmington ave.  
 1928 Cogan, George Eugene, 50 Farmington ave.  
 1913 Cogswell, Eliot Sanborn, 179 Allyn.

- 1936 Cogswell, Lawrence Perley, 179 Allyn.  
 1935 Connor, Joseph Joyce, 750 Main.  
 1933 Corcoran, Michael Anthony, 41 Webster.  
 1913 Costello, Henry Nicholas, 179 Allyn.  
 1924 Couch, Arthur Rockwell, 95 Farmington ave.  
 1921 Cragin, Donald Brett, 151 Farmington ave.  
 1933 Crosby, Edward Harding, 50 Farmington ave.  
 1936 Cunningham, James Morrow, 165 Capitol ave.  
 1914 Daly, Charles William, 750 Main.  
 1935 Daly, William Patrick, 342 Edgewood.  
 1929 Davenport, Anna Keith Prentiss, 154 Church.  
 1922 Davis, James Edward, 179 Allyn.  
 1932 Dawson, Lionel Montrose, 700 Main.  
 1909 DeBonis, Domenico A., 183 Westland.  
 1933 Kardys, John Albert, 487 Main.  
 1935 Karotkin, Robert Harold, 839 Albany ave.  
 1935 Kaschmann, Joseph, 445 Farmington ave.  
 1937 Katz, Dewey, 361 Linnmoore.  
 1924 Katz, Henry, 750 Main.  
 1926 Keefe, George Gregory, 30 Sisson ave.  
 1934 Keefe, Raymond Starkey, 272 Franklin ave.  
 1934 Keefe, Walter Joseph, 30 Sisson ave.  
 1908 Keith, Albert Russell, 50 Farmington ave.  
 1920 Kelly, Claude Currie, 179 Allyn.  
 1930 Kendall, Ralph Emerson, 20 S. Hudson.  
 1927 Kilbourn, Austin, 580 Asylum.  
 1920 Kilbourn, Joseph Birney, 54 Pratt.  
 1906 Kingsbury, Isaac William, 125 Trumbull.  
 1937 Kleiman, Abraham Ober, 750 Main.  
 1932 Klein, Abraham Arthur, 509 Farmington ave.  
 1925 Knowlton, Millard, 165 Capitol ave.  
 1901 Lampson, Edward Rutledge, 179 Allyn.  
 1938 Lampson, Rutledge Starr, 179 Allyn.  
 1913 Landry, Arthur Bernard, 50 Farmington ave.  
 1926 Landry, Benedict Bernard, 50 Farmington ave.  
 1929 Larrabee, John Whitfield, 650 Main.  
 1895 Lawton, Franklin Lyman, 580 Farmington ave.  
 1920 Lechner, William, 66 Farmington ave.  
 1933 Levin, Albert Elliot, 242 Trumbull.  
 1935 Levine, Sinclair Simcha, 54 Church.  
 1938 Lewis, Henry Ryle, 177 Retreat ave.  
 1937 Lischner, Moses David, 650 Main.  
 1934 Little, Milton Frederick, 49 Pearl.  
 1915 Locke, Harry Leslie Franklin, 179 Allyn.  
 1923 Luby, Thomas John, 410 Asylum.  
 1916 Lynch, James Francis, 242 Trumbull.  
 1913 Madden, Leon Irving, 50 Farmington ave.  
 1919 Maislen, Samuel, 2138 Main.  
 1931 Mancoll, Morris Max, 242 Trumbull.  
 1932 Marrazini, Samuel, 763 Albany ave.  
 1930 McClellan, Wilbert Ernest, 750 Main.  
 1898 McCook, John Butler, 390 Main.  
 1936 McCormack, Christopher Joseph, 50 Farmington ave.  
 1934 McDermott, John Francis, 750 Main.  
 1933 McGrath, John Francis, 663 Maple ave.  
 1934 McLean, John Joseph, 650 Main.  
 1932 McLellan, Philip Garretson, 683 Asylum ave.  
 1935 McNulty, Terence Francis, 50 Farmington ave.  
 1907 McPartland, Patrick Farrell, 410 Asylum.  
 1916 McPherson, Sidney Horace, 4 Atwood.  
 1933 Middlebrook, Louis Francis, Jr., 689 Asylum ave.  
 1935 Mikolainis, Mindaugis Vincent, 36 Capitol ave.  
 1937 Miller, Harry Bernard, 99 Pratt.  
 1916 Miller, James Raglan, 179 Allyn.  
 1933 Mirabile, Charles Samuel, 179 Allyn.  
 1933 Mirabile, Charles Samuel, 402 Farmington ave.  
 1937 Montano, Rocco Anthony, 242 Trumbull.  
 1909 Morrissey, Michael James, 18 Asylum.  
 1927 Moylan, Thomas Patrick, 50 Farmington ave.  
 1930 Moyle, Henry Brown, 488 Main.  
 1919 Murphy, James Edward, 179 Allyn.  
 1935 Murphy, Thomas Francis, 619 Park.  
 1897 Naylor, James Henry, 1 Main.  
 1938 Neidlinger, William James, 404 Farmington ave.  
 1926 Oberg, Frank Thorwald, 689 Asylum ave.  
 1923 O'Connell, John Francis, 865 Park.  
 1928 O'Connell, Maurice Francis, 214 Franklin ave.  
 1902 O'Flaherty, Ellen Pembroke, 140 Main.  
 1928 Ogden, Ralph Trafton, 179 Allyn.  
 1931 Olmsted, John Gerald Maurice, 404 Farmington ave.  
 1937 O'Neill, Charles William, 18 Asylum St.  
 1921 Osborn, Stanley Hart, 165 Capitol ave. Home address: 41 Brace rd., W. Hartford.  
 1927 Osmond, Robert Hunter, 50 Farmington ave.  
 1906 Outerson, Richard Ambrose, 50 Farmington ave.  
 1938 Padula, Vincent Domenica, 132 N. Britain ave.  
 1933 Paladino, Joseph Salvator, 300 Franklin ave.  
 1919 Parker, John Woodcock, 84 Forest.  
 1926 Partridge, Winthrop Prescott, 179 Allyn.  
 1938 Peacock, Albert Upham, 751 Asylum ave.  
 1933 Phelps, Maxwell Overlock, 594 Farmington ave.  
 1937 Phelps, Paul Stetson, 199 S. Beacon.  
 1929 Pike, Maurice Mitchell, 179 Allyn.  
 1934 Preston, Thomas Raymond, 65 Kenyon.  
 1934 Priddy, Foster Eugene, 30 Farmington ave.  
 1913 Prince, Alexander Louis, 36 Pearl.  
 1936 Quarrier, Sidney Sayre, 751 Asylum ave.  
 1923 Radin, Morris Jacob, 650 Main.  
 1916 Radom, Fanny, 2094 Main.  
 1928 Radom, Myron Michael, 242 Trumbull.  
 1923 Rankin, Bertrand Fred, 57 Pratt.  
 1913 Reardon, William Francis, 750 Main.  
 1934 Reidy, David Dillon, 750 Main.  
 1927 Resnisky, Andrew Francis, 57 Pratt.  
 1928 Reynolds, Harry St. Clair, 410 Asylum.  
 1916 Reynolds, Harry Stephen, 18 Asylum.  
 1930 Reynolds, Robert Gardner, 179 Allyn.  
 1924 Richman, Raynauld Dobson, 125 Trumbull.  
 1922 Roberts, Douglas James, 179 Allyn.  
 1932 Robinson, Albert James, 55 Elm.  
 1929 Roche, Arthur Felix, 50 Farmington ave.  
 1937 Rogers, Frederick Peckham, 50 Farmington ave.  
 1934 Rollins, Henry Brock, 140 Garden.  
 1932 Romaniello, Rocco John, 415 Hillside ave.  
 1909 Rooney, James Francis, 410 Asylum.  
 1936 Rosenbaum, George Jonas, 647 New Britain ave.  
 1935 Roth, Frank Edward, 650 Main.  
 1900 Rowley, Alfred Merriman, 179 Allyn.  
 1910 Rowley, John Carter, 179 Allyn.  
 1907 Rowley, Robert Lee, 79 Elm.  
 1921 Russell, George Gardiner, 179 Allyn.  
 1936 Ryan, Francis James, 439 Farmington ave.



1916 Sagarino, John Francis, 306 Church.  
 1937 Sayers, John Joseph, 656 Park.  
 1923 St. John, Leopold Albert, 25 Charter Oak ave.  
 1926 Salvin, Benjamin Lloyd, 242 Trumbull.  
 1932 Samponaro, Nicholas, 650 Main.  
 1928 Scafarello, Peter Joseph, 410 Asylum.  
 1932 Schaefer, Abraham Maurice, 435 Farmington ave.  
 1920 Shaefer, Jacob, 750 Main.  
 1934 Schuman, David Harry, 909 Albany ave.  
 1923 Scudder, Winthrop Davis, 179 Allyn.  
 1887 Segur, Gideon Cross, 67 Farmington ave.  
 1932 Seibert, Alfred Frank, 700 Main.  
 1923 Seigall, Harry Arthur, 750 Main.  
 1920 Shafer, Alexander Samuel, 68 Pratt.  
 1928 Shaw, George Hamill, 700 Main.  
 1920 Shea, Daniel Edward, 750 Main.  
 1933 Shulman, David Nathaniel, 422 Farmington ave.  
 1932 Sigal, Jacob Bernard, 99 Pratt.  
 1936 Slossberg, David Seymour, 541 Park.  
 1901 Smith, Earl Terry, 36 Pearl.  
 1925 Smith, George Mortimer, 700 Main.  
 1937 Sneidman, George Irving, 18 Asylum.  
 1929 Snelling, Pinckney Welch, 179 Allyn.  
 1938 Souther, Susan Page, State Office building.  
 1937 Spekter, Louis, 580 Asylum ave.  
 1921 Spillane, Bernard, 179 Allyn.  
 1927 Standish, Erland Myles, 179 Allyn.  
 1935 Standish, Hilda Crosby, 100 Retreat ave.  
 1897 Standish, James Herbert, 701 Albany ave.  
 1931 Standish, Welles Adams, 701 Albany ave.  
 1905 Starr, Robert Suthoss, 179 Allyn.  
 1930 Steincrohn, Peter Joseph, 705 Asylum ave.  
 1902 Steiner, Walter Ralph, 646 Asylum ave.  
 1935 Stempa, Henry, "Cedarcrest".  
 1930 Stephenson, Charles Wattles, 179 Allyn.  
 1919 Stockwell, William Myron, "Cedarcrest".  
 1938 Stolzheise, Ralph Merwin, 200 Retreat ave.  
 1903 Storrs, Eckley Raynor, 179 Allyn.  
 1923 Storrs, Ralph Warren, 179 Allyn.  
 1923 Stoughton, Dwight Harold, 247 S. Whitney.  
 1908 Swan, Horace Cheney, 196 N. Whitney.  
 1914 Sweet, John Henry Throop, Jr., 179 Allyn.  
 1905 Swett, Paul Plummer, 4 Atwood.  
 1932 Talbot, Henry Pierce, 165 Capitol ave.  
 1906 Taylor, Maude Winifred, 47 Willard.  
 1921 Thenebe, Carl Leonard, 68 Pratt.  
 1922 Thompson, Hartwell Greene, 179 Allyn.  
 1938 Tovell, Ralph Moore, Hartford Hospital.  
 1930 Townsend, Wilmot Charles, 50 Farmington ave.  
 1912 Truex, Edward Hamilton, 99 Pratt.  
 1908 Tuch, Morris, 99 Pratt.  
 1907 Turbert, Edward Joseph, 703 Asylum ave.  
 1937 Twaddle, Paul Holmes, 50 Farmington ave.  
 1937 Unsworth, Arthur Charles, 49 Pearl.  
 1933 Uricchio, Joseph George, 260 Wethersfield ave.  
 1908 Vail, George Francis, 36 Pearl.  
 1923 VanKleeck, Euen, 40 N. Whitney.  
 1904 VanStrander, William Harold, 179 Church.  
 1926 VanWart, William Haley, 650 Main.  
 1917 Vernlund, Carl Frithiof, 179 Allyn.  
 1921 Vershbow, Nathan, 28 Sisson ave.  
 1894 Waite, Frank Louis, 68 Pratt.

1914 Waite, Robert Lester, 68 Pratt.  
 1932 Wallace, Charles Kenneth, 700 Main.  
 1937 Walton, Loftus Linwood, 179 Allyn.  
 1932 Warring, Howard Lewis, 1756 Main.  
 1934 Winer, Julius Gills, 750 Main.  
 1931 Weisenfeld, Nathan, 169 Church.  
 1936 Weissenborn, Walter, 50 Farmington ave.  
 1907 Welch, Thomas Francis, 50 Farmington ave.  
 1920 Weld, Stanley Burnham, 179 Allyn.  
 1916 Wells, Donald Breckenridge, 580 Asylum.  
 1922 Wentworth, John Alexander, 50 Farmington ave.  
 1924 Whalen, Edward Joseph, 750 Main.  
 1938 Whitcomb, Benjamin Bradford, 50 Farmington ave.  
 1907 Wiedman, Otto George, 179 Allyn.  
 1931 Wienski, John Casimer, 502 Park.  
 1935 Wilson, Charles Christopher, 249 High.  
 1907 Wilson, James Cornelius, 179 Allyn.  
 1930 Wilson, William Augustus, 683 Asylum ave.  
 1904 Witter, Orin Russell, 179 Allyn.  
 1934 Woodford, Chester North, 703 Asylum ave.  
 1923 Woodson, Jacob Tyree, 179 Allyn.  
 1916 Worthen, Thacher Washburn, 179 Allyn.  
 1922 Wright, William Witter, 700 Main.  
 1932 Wulp, George Adolf, 50 Farmington ave.  
 1912 Yergason, Robert Moseley, 50 Farmington ave.  
 1928 Zariphes, Constantine Argyros Paleslogos, 96 Main.  
 1934 Zeman, Burnhardt, 1269 Main.

## MANCHESTER

1924 Boyd, Howard, 935 Main.  
 1936 Keeney, Robert Raymond, Jr., 791 Main.  
 1925 Knapp, Robert Phineas, 147 Hartford rd.  
 1937 Sundquist, Alfred Bernhardt, 843 Main.  
 1936 Zaglio, Edmond Robert, 12 Myrtle.

## SOUTH MANCHESTER

1905 Burr, Noah Arthur, 14 Park.  
 1926 Caldwell, David Manchester, 935 Main.  
 1926 Friend, Amos Edgar, 935 Main.  
 1927 Higgins, Edwin Carlton, 875 Main.  
 1921 Lundberg, George Albin Ferdinand, 755 Main.  
 1908 May, George William, 186 E. Center.  
 1916 Moore, Demarquis DeCasso Ye Rujo, 689 Main.  
 1930 Moriarty, Mortimer Emmett, 905 Main.  
 1893 Weldon, Thomas Henry, 905 Main.

## NEW BRITAIN

1932 Benoit, Raoul Joseph, 99 W. Main.  
 1930 Blogoslawski, Walter Joseph, 419 Main.  
 1909 Bodley, George Houghton, 155 W. Main.  
 1935 Bristoll, Donald Andrews, 55 W. Main.  
 1927 Buol, Robert Stanley, 99 W. Main.  
 1935 Chalmers, Harriet Elizabeth, 45 Walnut.  
 1926 Chernaik, Samuel Julius, 300 Main.  
 1913 Cooley, Clifton Mather, 44 S. High.  
 1931 Darrow, John Edward, 55 W. Main.  
 1928 Donnelly, Stephen Patrick, 55 W. Main.  
 1934 Dray, Edward Joseph, 259 Main.  
 1915 Dunn, George Washington, 55 W. Main.  
 1936 Enander, Fred Conrad, 25 Arch.  
 1923 Flanagan, George Michael, 489 Main.  
 1923 Flanagan, William Francis, 55 W. Main.  
 1931 Geetter, Isadore Stolper, 92 Grand.  
 1921 Grant, Arthur Sheldon, 55 W. Main.

- 1937 Hart, Carl J., 259 Main.  
 1930 Kalett, Joseph, 99 W. Main.  
 1924 Kinsella, Gertrude Christine Johnson, 52 Main.  
 1924 Kinsella, Michael Allen, 52 Main.  
 1926 Lekston, Roman Francis, 197 W. Main.  
 1928 Loud, Norrin Wiley, Box 1292, New Britain General Hospital.  
 1931 Marsh, Milton Loveland, 272 Main.  
 1930 Matteis, Joseph Theodore, 55 W. Main.  
 1934 Michalowski, Valerian Stanislaus, 561 Main.  
 1935 Moorad, Philip Jacob, 55 W. Main.  
 1912 Morrissey, William Thomas, 55 W. Main.  
 1923 Mouradian, Mary Garoudy, 87 Prospect.  
 1938 Perakos, George Peter, 300 Main.  
 1930 Pullen, Richard Woollard, 55 W. Main.  
 1930 Purney, John, 99 W. Main.  
 1936 Resnik, Edward, 166 Main.  
 1930 Schechtman, Charles Theodore, 81 W. Main.  
 1931 Schupack, Samuel David, 99 W. Main.  
 1930 Slys, Ladislaus Bernard, 589 Main.  
 1928 Smith, Vincent Joseph, 55 W. Main.  
 1936 Squillacote, Vincent Joseph, 99 W. Main.  
 1935 Tokarczyk, John Joseph, 32 North.  
 1923 Tuttle, Amelia Veronica, 272 Main.  
 1928 Waskowitz, David, 81 W. Main.  
 1934 Watson, William James, 272 Main.  
 1932 White, John Cowles, 55 W. Main.

## NEWINGTON

- 1936 Maher, Thomas Francis, Veterans Administration Facility.  
 1934 Sills, Theodore Hopkins, 866 Main.

## PLAINVILLE

- 1878 Bull, John Norris, 57 Whiting.  
 1931 Cook, George Francis, 4 East Main.  
 1931 Frost, Lawrence Hubbard, 98 W. Main.  
 1934 Menousek, Joseph Albert, 14 E. Main.  
 1938 Tortolani, Aresto Peter, 61 E. Main.

## ROCKY HILL

- 1904 Moser, Oran Alexander, Elm.

## SIMBSURY

- 1925 Murphy, Owen Lee, Weatogue.  
 1932 Stretch, James Edison, N. Main.

## SOUTHINGTON

- 1937 Connor, George Michael, 772 S. Main.  
 1935 Dudac, Thomas William, 9 Center.  
 1933 Gura, George Michael, 22 Main.  
 1935 Nagle, William Thomas, 23 Woodruff.  
 1929 Simmons, Eric Melville, Main.  
 1929 Thalberg, Reuben Edward, 32 N. Main.

## SUFFIELD

- 1929 Levy, William, 339 Main.  
 1930 Upson, William Hart, 394 Main.

## UNIONVILLE

- 1937 Dunne, Edward Patrick, Main.

## WEST HARTFORD

- 1931 Case, Edward Percy, 28 Brunswick ave.  
 1932 Crawley, George Andrew, 330 Park rd.

- 1928 Cushman, Laurence Arnold, 23 S. Main.  
 1910 Denne, Thomas Harman, 39 N. Main.  
 1921 Dinsmore, William Wert, 28 Bainbridge rd.  
 1923 Drake, Percy Greenough, 804 Farmington ave.  
 1938 Foote, Franklin Manly, 100 Dover rd.  
 1938 Gray, Harry Joshua, 8 Newport ave.  
 1930 Griggs, John Bolter, 38 Orchard rd.  
 1932 Lundborg, Francis Ludwig, 31 N. Main.  
 1930 Lynch, John Francis, 42 Whetton rd.  
 1935 MacLean, Ethel Margaret, 32 Bishop rd.  
 1935 Martin, John Garthwaite, 7 S. Main.  
 1938 O'Malley, Martha Alice, 461 Prospect ave.  
 1930 Parshley, Philip Ford, 20 S. Quaker lane.  
 1924 Root, Maurice Timothy, 51 N. Main.  
 1935 Root, Sophie Townsend, 51 N. Main.  
 1933 Smith, Harry Bryant, 1014 Farmington ave.  
 1936 Stewart, Lester Quentin, 69 S. Main.  
 1937 Tait, Arthur Alfred, 333 Park rd.  
 1934 Winters, John Thomas, 3 S. Main.

## WETHERSFIELD

- 1883 Fox, Edward Gager, 32 Hartford ave.  
 1892 Howard, Arthur Wayland, 330 Main.  
 1933 Howard, Harold Amasa, 330 Main.  
 1927 Smith, William Bowers, 91 Center.  
 1932 Storms, William Frederick, 147 Main.

## WINDSOR

- 1934 Dower, William Ambrose, 18 Elm.  
 1930 MacCready, William Harold, 38 Elm.  
 1924 Pratt, Aaron Paul, 253 Broad.

## WINDSOR LOCKS

- 1937 Coyle, Bruce James, 2 Chestnut.  
 1934 Whitford, Warren, 134 Main.

## OUT OF COUNTY

- 1935 Breslin, James Edward, 74 North st., Pittsfield.  
 1930 Byrne, David Walter, The Presbyterian Hospital, Broadway and 165th St., N. Y. C.  
 1911 Cobb, Albert Edward, Canaan.  
 1930 Dignam, Edward Anthony, Rockville.  
 1900 Enders, Thomas Burnham, Mystic.  
 1932 Filson, Ralph Marshall, 107 Tullamore Road, Garden City, L. I., N. Y.  
 1936 Hatfield, Margaret Ellen, 220 School Street, Janesville, Wisconsin.  
 1930 Kunkel, Frederick Earle, Merion Apts., Merion, Pa.  
 1928 Mahoney, Daniel F. C., P. O. Box 2089, Tucson, Arizona.  
 1937 Pekala, Joseph Gabriel, 42 Cherry st., Northampton, Mass.  
 1934 Prout, Curtis Tuttle, Gaylord Farms, Wallingford.  
 1902 Purinton, Charles Oscar, U. S. Veterans Hospital, Sunmount, N. Y.  
 1923 Walker, William Hastings, Newtown.  
 1933 Wood, Frank Oliver, Free Hospital for Women, Brookline, Mass.

Total number 512

## LITCHFIELD COUNTY

President, FLOYD A. WEED, M.D., 13 Main Street, Torrington.



*Vice-President*, EDWIN G. READE, M.D., Main Street, Watertown.

*Secretary*, W. BRADFORD WALKER, M.D., Cornwall.

*Councilor*, CHARLES H. TURKINGTON, M.D., On-the-Green, Litchfield.

#### *Censors*

(One elected annually for a term of three years)

1936 ROY V. SANDERSON, M.D., 570 Main Street, Winsted.

1937 FORBES S. ADAM, M.D., Canaan.

1938 FREDERIC W. WERSEBE, M.D., Washington.

#### *Committee on Public Policy and Legislation*

(Elected annually)

SANFORD H. WADHAMS, M.D., 908 Main Street, Torrington, *Chairman*.

ELIAS PRATT, M.D., 27 Daycoeton Place, Torrington.

CHARLES H. TURKINGTON, M.D., On-the-Green, Litchfield.

#### *Committee on Medical Ethics and Deportment*

(Appointed by President until removed or successor appointed)

HARRY B. HANCHETT, M.D., 55 Main Street, Torrington, *Chairman*.

JEROME S. CHAFFEE, M.D., Main Street, Sharon.

WINFIELD WIGHT, M.D., Goodwin Court, Thomaston.

ELIAS PRATT, M.D., 27 Daycoeton Place, Torrington.

CHARLES H. TURKINGTON, M.D., On-the-Green, Litchfield.

W. BRADFORD WALKER, M.D., Cornwall, *Recorder*.

Annual Meeting, Fourth Tuesday in April.

Semi-Annual Meeting, First Tuesday in October.

#### CORNWALL

1922 Walker, Wilmarth Bradford.

#### CORNWALL BRIDGE

1938 Clarke, William C.

1931 Evarts, Josephine, Warren rd.

#### KENT

1936 Wray, Edward Halloway, Jr., Kent School.

#### LITCHFIELD

1921 Childs, Albert Ewing, North rd.

1935 Kilgus, John Frank, Jr., West.

1910 Turkington, Charles Henry, On-the-Green.

1896 Warner, Charles Norton, North.

1936 Wray, Edward Halloway, Jr., Torrington rd.

#### NEW HARTFORD

1937 Ashley, Homer Champion, Main.

#### NEW MILFORD

1938 Ignace, Stephen J.

1938 Stevens, Howard G.

#### NORFOLK

1937 Barstow, Richard Iddings, The Village Green.

1909 Pinney, Almon William, Greenwood's rd, E.

1934 Ursoe, Frank Domenico, Greenwood's rd., W.

#### NORTH CANAAN

##### CANAAN

1929 Adam, Forbes Sampson.

1935 Elliott, John Richard.

1924 Sellew, Robert Cowan.

#### PLYMOUTH

##### TERRYVILLE

1913 Lawton, Richard John, 9 N. Main.

#### SALISBURY

##### LAKEVILLE

1933 Herrick, Francis Leach.

1923 Peterson, Clark Kimball.

1917 Tuttle, Albert Lake.

1936 Wieler, Harry Julius, Hotchkiss School.

#### SHARON

1904 Chaffee, Jerome Stuart, Main.

1931 Hansell, Howard Russell, W. Main.

#### THOMASTON

1938 Atha, Henry George.

1928 Curran, Harold Joseph, Main.

1903 Hazen, Robert, Union.

1910 Kane, James Hugh, S. Main.

1922 Wight, Winfield Emmons, Goodwin Court.

#### TORRINGTON

1898 Barker, Abram James, 216 Main.

1937 Bienkowski, Joseph George, 40 Main.

1898 Carlin, Charles Henry, 236 Main.

1930 Danaher, Thomas Joseph, 82 Litchfield.

1935 Garston, Louis Edward, 49 Main.

1931 Giobbe, Michael Edward, 24 E. Main.

1936 Goldberg, Isadore Solomon, 5 Water.

1908 Hanchett, Harry Bigelow, 55 Main.

1936 Hill, Emerson Stanley, 53½ Main.

1930 Hoffman, Wallace Ellsworth, 28 Daycoeton pl.

1917 Kennedy, William Clement, 106 Main.

1938 Kott, Joseph Henry, 199 Main.

1936 LoRusso, Domenico Leonardo, 40 Main.

1923 Oelschlegel, Herbert Charles, 19 Maiden lane.

1923 Polito, Frank Leonard, 16 Litchfield.

1887 Pratt, Elias, 27 Daycoeton pl.

1904 Ryan, Timothy Mayher, 24 Mason.

1936 Sutherland, Francis Alexander, 46 Main.

1917 Thomson, Thomas Leonard, 24 Mason.

1898 Wadhams, Sanford Hosea, 908 Main.

1917 Weed, Floyd Albert, 13 Main.

1937 Wilens, Gustav, 40 Main.

#### WASHINGTON

1927 Jackson, Arthur Hartt.

1908 Wersebe, Frederic William.

#### WATERTOWN

1936 Cleary, Harold John, Main.

1897 Loveland, Ernest Kilborn, 48 North.

1936 Meyers, Royal Abbott, 162 Main.

1919 Reade, Edwin Godwin, Main.

#### WINCHESTER

##### WINSTED

1938 Baker, Philip George, 442 Main.

1936 Cornelio, Francis Joseph, 153 Main.

1933 Derwin, James Joseph, 350 Main.

1915 English, Chester Ferrin, 64 Main.

1937 Gallo, Francis, 384 Main.

- 1927 Herman, Donald Warner, 356 Main.  
 1936 Levy, Aaron, 384 Main.  
 1912 Reidy, Maurice Joseph, 350 Main.  
 1922 Sanderson, Roy Voter, 570 Main.

## WOODBURY

- 1913 Allen, Howard Sanford.  
 1937 Reichenbach, Frank.

## OUT OF COUNTY

- 1936 Lovelace, Daniel Dudley, 812 Pollack Street, Kington, N. C.  
 1881 Platt, William Logan, State Hospital, P. O. Box 476, Norwich.  
 1914 Woodward, Harold Burton, 321 Main St., Bristol.  
 Total number 72

## MIDDLESEX COUNTY

- President*, ELLA A. WILDER, M.D., 80 South Main Street, Middletown.  
*Vice-President*, G. MANSFIELD CRAIG, M.D., 119 Main Street, Middletown.  
*Secretary*, CHARLES RUSSMAN, M.D., Connecticut State Hospital, Middletown.  
*Councilor*, ROY L. LEAK, M.D., Connecticut State Hospital, Middletown.

*Censors*

(One elected annually for a term of three years)

- 1936 WILLIAM J. TATE, M.D., Elm Street, Deep River.  
 1937 GEORGE A. ELLIOTT, M.D., Connecticut State Hospital, Middletown.  
 1938 FREDERICK E. TRACY, 120 Pearl Street, Middletown.

*Committee on Public Policy and Legislation*

(Appointed until removed or successor appointed)

- JAMES MURPHY, M.D., 101 Broad Street, Middletown, *Chairman*.  
 JESSIE W. FISHER, M.D., 28 Crescent Street, Middletown.  
 BENJAMIN A. ROCCAPRIORE, M.D., 504 Main Street, Middletown.

*Committee on Medical Ethics and Deportment*

(Two appointed biennially by the President for a term of six years)

- 1934 JESSIE W. FISHER, M.D., 28 Crescent Street, Middletown.  
 1934 WILLIAM M. JOYCE, M.D., 121 Main Street, Middletown.  
 1936 ROY L. LEAK, M.D., Connecticut State Hospital, Middletown.  
 1938 DANIEL A. NOLAN, M.D., 613 Main Street, Middletown.  
 1938 LLOYD W. MINOR, M.D., 119 Main Street, Middletown.  
 1938 ALFRED N. SWEET, M.D., 70 Crescent Street, Middletown.

Annual Meeting, Second Thursday in April.

Semi-Annual Meeting, Second Thursday in October.

## CHESTER

- 1935 Lieberman, David Leonard.

## CLINTON

- 1937 Rindge, Norman Pember, Main.  
 1935 Stone, Harry Russell, 67 West Main.

## CROMWELL

- 1934 Couch, Frank Hallock, Cromwell Hall.  
 1934 Couch, Mildred Warden, Cromwell Hall.  
 1928 Nelson, Walter Nathaniel, P. O. Box 201.  
 1925 Pierson, Emily Miller, Main.

## EAST HADDAM

- 1924 Crook, Joseph Bruce, P. O. Box No. 133.

## MOODUS

- 1935 Horsefield, Thomas Earl, P. O. Box 40.

## EAST HAMPTON

- 1936 Gardner, Norman Homer.  
 1934 Soreff, Louis, 15 Main.

## ESSEX

- 1903 Bradeen, Frederick Barton, P. O. Box No. 221.  
 1908 Davis, Charles Clarence, P. O. Box No. 350.  
 1938 Scott, J. Clifford, 20 West ave.

## HADDAM

- 1893 Mead, Kate Campbell Hurd.

## MIDDLETOWN

- 1926 Armstrong, George Gabriel, Connecticut State Hospital.  
 1933 Beauchemin, Joseph Adelard, Connecticut State Hospital.  
 1937 Calhoun, Hazen Albert, Jr., 647 Main.  
 1926 Chase, Carl Clarence, 121 Main.  
 1936 Colomb, Henry Octave, Connecticut State Hosp.  
 1928 Compson, Florence Eberly Mentzer, Connecticut State Hosp.  
 1924 Craig, George Mansfield, 119 Main.  
 1935 Elliott, George Albert, Connecticut State Hosp.  
 1912 Fauver, Edgar, 55 Mt. Vernon.  
 1933 Fekety, Stephen Henry, 675 Main.  
 1921 Felt, Paul Revere, Connecticut State Hosp.  
 1900 Fisher, Jessie Weston, 28 Crescent.  
 1927 Frank, Harry Selig, 144 Washington.  
 1931 Gissler, Norman Edwin, 164 Court.  
 1927 Grower, Julius Harry, 164 Court.  
 1920 Harvey, Carl Clifford, 119 Main.  
 1935 Haviland, Walter Childs, Connecticut State Hosp.  
 1924 Holley, Erving, Connecticut State Hosp.  
 1924 Joyce, William Michael, 121 Main.  
 1928 LaBella, Louis Oronato, 612 Main.  
 1920 Leak, Roy Leighton, Connecticut State Hosp.  
 1925 Loffredo, Louis, 77 Crescent.  
 1929 Magnano, Joseph, 100 Broad.  
 1934 Minor, Lloyd Wesley, 119 Main.  
 1896 Murphy, James, 101 Broad.  
 1896 Nolan, Daniel Andrew, 613 Main.  
 1928 Piasta, Peter Ferdinand, 602 Main.  
 1889 Potter, Frank Edward, 160 College.  
 1934 Roccapriore, Benjamin Anthony, 504 Main.  
 1926 Russman, Charles, Connecticut State Hosp.  
 1929 Speight, Harold Edmund, 642 Main.  
 1924 Sweet, Alfred Norton, 70 Crescent.  
 1933 Tracy, Frederick Erwin, 120 Pearl.



- 1919 Van Cor, Chester Arthur, Connecticut State Hosp.  
 1936 Waldman, Jacob Edward, 252 Main.  
 1933 Whiting, Harry St. John, Connecticut State Hosp.  
 1925 Wilder, Ella Annis, 80 S. Main.  
 1922 Wrang, William Emil, 296 Main.

## OLD SAYBROOK

- 1905 Granniss, Irwin, P. O. Box 312.  
 1934 Greenberg, Aaron.

## PORTLAND

- 1933 Schwartz, Philip Edward, 309 Main.

## SAYBROOK

## DEEP RIVER

- 1903 Pratt, Arthur Milton, P. O. Box 477.  
 1938 Scott, James Clifford, Main and High.  
 1932 Tate, William James, Elm.

## OUT OF COUNTY

- 1890 Coleburn, Arthur Burr, 5 Cannon Street, Norwalk.  
 1933 Isenman, Robert, 356 Ferry Street, Malden, Mass.  
 1904 Kingman, James Henry, 96 Everit St., New Haven.  
 1926 \*MacGillivray, Donald Joseph, 362 Commonwealth ave., Boston, Mass.  
 1928 Ward, Arthur Henry, Woodside Cottages, Framingham, Mass.  
 1936 Wilcox, Frederick Carpenter, Jr., Hartford Hosp., Hartford.  
 1922 \*Whitney, Ray Lester, 464 Beacon st., Boston, Mass.

Total number 65

## NEW HAVEN COUNTY

*President*, CREIGHTON BARKER, M.D., 258 Church Street, New Haven.

*Vice-President*, COLE B. GIBSON, M.D., "Undercliff", Meriden.

*Secretary*, RALPH E. McDONNELL, M.D., 158 Whitney Avenue, New Haven.

*Councilor*, THOMAS P. MURDOCK, M.D., 147 West Main Street, Meriden.

*Censors*

(Elected annually)

GEORGE BLUMER, M.D., 158 Whitney Avenue, New Haven.

DAVID R. LYMAN, M.D., Gaylord Farm Sanatorium, Wallingford.

J. HAROLD ROOT, M.D., 103 N. Main Street, Waterbury.

*(Committee on Public Policy and Legislation)**(Appointed annually by the President)*

CHARLES W. COMFORT, JR., M.D., 27 Elm Street, New Haven.

CHARLES W. GAYLORD, JR., M.D., 93 South Main Street, Branford.

A. NOWELL CREADICK, M.D., 79 Trumbull Street, New Haven.

JAMES D. MCGAUGHEY, M.D., 261 Center Street, Wallingford.

CHARLES L. LARKIN, M.D., 101 North Main Street, Waterbury.

*Committee on Medical Ethics and Deportment*

*(Two appointed annually by the President for a term of 3 years)*

JOHN S. DYE, M.D., 111 West Main Street, Waterbury.

CHARLES J. BARTLETT, M.D., Grace Hospital, New Haven.

THOMAS P. MURDOCK, M.D., 147 West Main Street, Meriden.

CREIGHTON BARKER, M.D., 258 Church Street, New Haven.

DAVID P. SMITH, M.D., 199 West Main Street, Meriden.

STANHOPE BAYNE-JONES, M.D., 333 Cedar Street, New Haven.

*Annual Meeting*, Fourth Thursday in April.

*Semi-Annual Meeting*, Fourth Thursday in October.

## ANSONIA

- 1916 Aaronson, Michael S., 410 Main.  
 1937 Alu, Anthony F., 290 Main.  
 1935 Blumenthal, Edward Jedediah, 88 Main.  
 1938 Casagrande, John J., 178 Main.  
 1915 O'Neil, William Henry, 156 Main.  
 1907 Parmelee, Edward Kibbe, 50 Main.  
 1932 Renehan, John Michael, 100 Main.  
 1924 Senfield, Maxon Major, 110 Main.  
 1924 Steudel, Henry, 88 Main.  
 1924 Thomas, John Joseph, 290 Main.  
 1909 Tolles, Burton Isaac, 38 Main.  
 1900 Wilmot, Louis Howard, 2 S. Cliff.

## BRANFORD

- 1934 Blanchard, Dana Lincoln, 19 Laurel.  
 1931 Bodie, William Joseph, 146 Montowese.  
 1917 Gaylord, Charles Woodward, 93 S. Main.  
 1929 Levy, Nathan, 94 Main.  
 1916 McQueen, Arthur Samuel, 187 Montowese.

## PINE ORCHARD

- 1919 Smith, George Milton.

## CHESHIRE

- 1926 Lindsay, John Crandall, State Reformatory.  
 1923 Moore, Wilbur John, Maple ave

## DERBY

- 1916 Baldwin, Charles Tomlinson, 74 Fourth.  
 1927 Burns, George Dewey, 272 Main.  
 1885 Loomis, Frank Newton, 100 Atwater ave.  
 1910 Parlato, Michael Antonio, 270 Elizabeth.  
 1929 Pepe, Carmen Thomas, 157 Minerva.  
 1890 Pinney, Royal Watson, 116 Derby ave.  
 1914 Plunkett, Thomas Francis, 18 Elizabeth.  
 1925 Rentsch, Samuel Burton, 61 Seymour ave.  
 1927 Scott, William Joseph, 58 Elizabeth.  
 1910 Treat, William Howard, 258 Main.

## EAST HAVEN

- 1924 Taylor, Robert Mitchell, 578 Thompson ave.

## GUILFORD

- 1935 Davis, George Breed, 29 Whitfield.  
 1916 Smith, Frederic DeWitt, 55 Park.

## HAMDEN

- 1937 Case-Doumer, Muriel, 95 Wayland.  
 1936 Corey, Walter VanArsdale, 1188 Whitney ave.

1926 Ematrudo, Frederick Roys, 1756 Whitney ave.  
 1937 Grillo, James Anthony, 2647 Whitney.  
 1904 Lay, Walter Sidders, 2320 Whitney ave.  
 1927 Slater, Morris, 1100 Dixwell ave.

## MOUNT CARMEL

1890 Joslin, George Herri, 2798 Whitney ave.

## MADISON

1929 Hughson, Donald Thomas, Boston Post rd.  
 1908 Rindge, Milo Pember, Boston Post rd.

## MERIDEN

1934 Affinito, Thomas, 128 W. Main.  
 1929 Campbell, Sherbourne, 147 W. Main.  
 1928 Caplan, Henry, 27½ W. Main.  
 1937 Carey, William Clark, 61 Colony.  
 1924 Carroll, William Edward, "Undercliff".  
 1937 Cohen, David Jerome, 3 Colony.  
 1926 Conroy, Michael Joseph, 64¼ E. Main.  
 1927 DeRosa, Sylvester Frank, 90 W. Main.  
 1930 Foster, Edward Wendell, 147 W. Main.  
 1921 Gibson, Cole Blease, "Undercliff."  
 1929 Hall, William Edward, 147 W. Main.  
 1937 Kaschub, Robert William, 119 W. Main.  
 1896 LaPointe, John William Henry, 56½ W. Main.  
 1934 Lirot, Stephen Leo Robert, 28 Crown.  
 1907 Lockwood, Howard DeForest, 248 E. Main.  
 1938 McCullough, Edward A., 53½ West Main.  
 1934 Mekrut, Joseph Anthony, 34½ W. Main.  
 1928 Mills, Bernard Litchfield, 94 E. Main.  
 1934 Misuk, Joseph Francis, 489 Broad.  
 1913 Murdock, Thomas Patrick, 147 W. Main.  
 1921 Otis, Fessenden Newport, 165 W. Main.  
 1920 Otis, Israel Sabine, 165 W. Main.  
 1932 Pennington, Harry Freeman, 455 Broad.  
 1937 Petrucelli, Rocco Joseph, 147 W. Main.  
 1931 Pierson, Louis A., 147 W. Main.  
 1916 Quinlan, Raymond Vincent, Lawton Bldg., 5 State.  
 1913 Smith, David Parker, 199 W. Main.  
 1935 Solomon, Charles Isadore, State School for Boys.  
 1934 Strickland, Harold, 128 W. Main.  
 1921 Tower, Arthur Augustus, 147 W. Main.  
 1936 Van Antwerp, Lee Douglas, "Undercliff".  
 1921 Wilson, James Alfred, 61 Colony.  
 1913 Wilson, Leslie Adams, 232 Colony

## MILFORD

1932 Budau, John Harry Diederichs, 442 E. Broadway,  
 Silver Beach.  
 1913 Fischer, William John Henry, 3 Lafayette.  
 1929 Geib, Henry Albert, Zion Hill rd.  
 1935 Harrington, Albert Eugene, 36 Broad.  
 1932 Heady, Carlton Kellogg, 12 Cherry.  
 1928 Hyde, Clinton John, 63 Gulf.  
 1933 Stetson, Harry Warren, 42½ Broad.

## DEVON

1934 Andrus, Oliver Burton, 531 Daytona ave.

## NAUGATUCK

1922 Duffy, Vincent Paul, 83 Meadow.  
 1923 Hill, William Edward, 150 Meadow.  
 1927 Johnson, Harold Albert, 297 Church.  
 1936 Pine, Clifford Shepard, 14 Hillside ave.

1938 Reilly, Walter J., 170 Meadow.  
 1937 Towne, Nehemiah Alvarado, 19 Hillside ave.  
 1926 Williams, Edward Everett, 269 Church.

## UNION CITY

1935 Curran, Edwin Russell, 364 N. Main.

## NEW HAVEN

1935 Abbey, Edward Augustin, 442 Temple.  
 1937 Abrashkin, Mortimer Dick, 1187 Chapel.  
 1921 Alderman, Irving Sanders, 204 Park.  
 1925 Allen, Edward Pratt, 27 Elm.  
 1902 Allen, Millard Filmore, 65 Dixwell ave.  
 1893 Alling, Arthur Nathaniel, 257 Church.  
 1919 Alpert, Reuben Henry, 1142 Chapel.  
 1932 Amatruda, Frank Gabriel, 542 Chapel.  
 1908 Arnold, Harold Sears, 442 Temple.  
 1930 Arnold, Hermann Bruno, 1460 Chapel.  
 1893 Bacon, Leonard Woolsey, 59 Trumbull.  
 1916 Baldwin, William Pitt, 1226 Chapel.  
 1920 Barker, Creighton, 129 Whitney ave.  
 1900 Barnes, William Samuel, 265 Church.  
 1908 Barrett, William Joseph, 546 Chapel.  
 1896 Bartlett, Charles Joseph, 183 Bishop.  
 1936 Bassin, Alexander Lewis, 789 Howard ave.  
 1930 Batelli, Clement Francis, 328 Townsend ave.  
 1925 Battista, Anthony William, 111 Osborn ave.  
 1934 Bayne-Jones, Stanhope, 333 Cedar.  
 1909 Beck, Frederick George, 193 York.  
 1926 Behan, Edmund Joseph, 1370 Chapel.  
 1892 Benedict, Frank Allen, 110 Vista Terrace.  
 1931 Benedict, Mary Kendrick, 10 Lincoln.  
 1911 Bergman, Axel P., 27 Elm.  
 1920 Berman, Harry Loring, 1142 Chapel.  
 1907 Blake, Eugene Maurice, 303 Whitney ave.  
 1922 Blake, Francis Gilman, 789 Howard ave.  
 1927 Blodinger, Israel Edward, 1142 Chapel.  
 1927 Blum, Max, 566 Howard ave.  
 1907 Blumer, George, 158 Whitney ave.  
 1911 Boardman, Albertus Kellogg, 441 Forbes ave.  
 1926 Bodie, John Allen, 221 Columbus ave.  
 1919 Bonoff, Zelly Adam, 1204 Chapel.  
 1919 Bretzfelder, Karl Benjamin, 265 Church.  
 1935 Brody, Bernard Stephen, 303 Whitney ave.  
 1938 Bruckner, William J., 129 Whitney ave.  
 1930 Bumstead, John Henry, 256 Bradley.  
 1934 Canfield, Norton, 789 Howard ave.  
 1928 Capecelatro, Alfonso, 142 Columbus ave.  
 1916 Carelli, Genesis Frank, 27 Elm.  
 1932 Celentano, Luca Eugene Humbert, 115 Howe.  
 1892 Cheney, Benjamin Austin, 265 Church.  
 1934 Claiborn, Louie Nixon, 303 Whitney ave.  
 1937 Clark, Mildred H., 244 Sherman ave.  
 1935 Climo, Samuel, 1172 Chapel.  
 1923 Cobey, James Francis, 1210 Chapel.  
 1922 Coffey, James Ryle, 216 Grand ave.  
 1925 Cofrances, Louis William, 190 Winthrop ave.  
 1901 Cohane, Jeremiah Joseph, 59 College.  
 1904 Cohane, Timothy Francis, 400 Congress ave.  
 1924 Cohen, William, 1195 Chapel.  
 1917 Collins, William Francis, 336 St. John.  
 1921 Colwell, Howard Spencer, 129 Whitney ave.  
 1914 Comfort, Charles Williams, Jr., 27 Elm.



- 1931 Connolly, Arthur James, 59 Trumbull.  
 1914 Conte, Harry Albert, 5 Elm.  
 1921 Cook, Robert Jay, 85 Whitney ave.  
 1931 Corradino, Charles Louis, 516 Howard ave.  
 1921 Creadick, Abraham Nowell, 79 Trumbull.  
 1936 Culotta, Charles Salvatore, 388 Orange.  
 1934 Cushing, Harvey, 789 Howard ave.  
 1924 Dallas, Marion, 248 Bradley.  
 1935 D'Amico, Michael, 303 Whitney ave.  
 1934 Darrow, Daniel Cady, 789 Howard ave.  
 1920 Dayton, Arthur Bliss, 129 Whitney ave.  
 1920 Deming, Charles Kenneth, 257 Church.  
 1922 Deming, Clyde Leroy, 789 Howard ave.  
 1925 Dennehy, William James, 1282 State.  
 1908 Diendorf, Allen Ross, 121 Whitney ave.  
 1938 Dobbs, William G. H., New Haven Hosp.  
 1938 Dobbs, William G. H., 789 Howard ave.  
 1922 Duffy, William Core, 55 Trumbull.  
 1923 Errico, Louis, 26 Elm.  
 1925 Evans, Theodore Schlosser, 59 Trumbull.  
 1935 Fenney, Philip William, 705 Dixwell ave.  
 1913 Ferguson, Robert John, 59 College.  
 1929 Fiskio, Peter William, 307 Humphrey.  
 1937 FitzSimons, Edmund Francis, 589 Howard ave.  
 1925 Fitzgerald, Charles, 265 Church.  
 1914 Flynn, Charles Thomas, 41 Trumbull.  
 1917 Flynn, David Aloysius, 326 Grand ave.  
 1929 Flynn, Harold Aloysius, 464 Dixwell ave.  
 1888 Foote, Charles Jenkins, 257 Church.  
 1929 Foster, Lewis Chandler, 256 Bradley.  
 1925 Fox, James Charles, Jr., 789 Howard ave.  
 1924 Freedman, Barnett Philip, 322 George.  
 1936 Freeman, David, 405 Temple.  
 1937 Fry, Clements Collard, 100 College.  
 1937 Gentile, Angelo Louis, 231 Greene.  
 1920 Geraci, Lucian Arthur, 546 Chapel.  
 1937 German, William John, New Haven Hosp.  
 1923 Gettings, James Augustus, 209 Whalley Ave.  
 1924 Giamarino, Henry James, 532 Chapel.  
 1923 Giannotti, Carl Charles, 214 Lafayette.  
 1926 Glazer, Morris, 1204 Chapel.  
 1910 Goldberg, Samuel James, 43 Trumbull.  
 1912 Goldman, George, 201 Park.  
 1927 Goldstein, Morris, 451 George.  
 1935 Goldstein, Richard Moses, 333 Cedar.  
 1938 Goodman, Louis S., 333 Cedar.  
 1933 Gordon, Ernest Foster, 31 Howe.  
 1921 Gordon, Robert Kelnar, 416 Haven Crown.  
 1924 Greenhouse, Barnett, 43 Trumbull.  
 1927 Groark, Joseph Anthony, 145 Grand ave.  
 1931 Grodin, Herman Wolmer, 840 Howard ave.  
 1936 Hankin, Morris Albert, 1184 Chapel.  
 1930 Harris, Benedict Richard, 176 Dwight.  
 1937 Harris, Jesse Samuel, 176 Dwight.  
 1931 Harrison, Elizabeth Ross, 442 Temple.  
 1935 Hart, James Clement, 340 Grand ave.  
 1903 Hartshorn, Willis Ellis, 67 Trumbull.  
 1920 Harvey, Samuel Clark, 789 Howard ave.  
 1937 Hathaway, John Seabury, 109 College.  
 1916 Hendricks, Albert Ludwig, 26 Trumbull.  
 1907 Henze, Carl William, 466 Orange.  
 1925 Herrmann, Julian Bertram, 204 Park.  
 1937 Hess, Orvan Walter, 79 Trumbull.  
 1908 Hessler, Herman Philip, 370 Livingston.  
 1930 Higgins, Joseph John, 48 Dwight.  
 1922 Hillman, Maurice Manuel, 1249 Chapel.  
 1927 Hippolitus, Jean DeFrancis, 1447 Chapel.  
 1916 Hirata, Isao, 1465 Chapel.  
 1924 Howard, Albert Joseph, 432 Whalley ave.  
 1935 Howard, Marion Edith, 789 Howard ave.  
 1915 Hynes, Frederick Henry, 195 Church.  
 1903 Hynes, Thomas Vincent, 1441 Chapel.  
 1914 Jack, Gabriel Joseph, 347 Orange.  
 1924 Jack, John Louis, 347 Orange.  
 1936 Jackson, Edith Banfield, 333 Cedar.  
 1914 James, George Richard, 195 Church.  
 1927 Jenkins, Ralph Hathaway, 59 College.  
 1933 Johnson, Carl Edward, 158 Whitney ave.  
 1919 Johnson, Edgar Mayer, 73 Howe.  
 1937 Kahn, Eugen, 333 Cedar.  
 1932 Kaplowe, Joseph Louis, 201 Park.  
 1938 Kennard, Margaret A., 333 Cedar.  
 1901 Kilbourn, Clarence Leishman, 202 Blatchley ave.  
 1898 Kirby, Frank Alonzo, 470 Winthrop ave.  
 1928 Klebanoff, Harry Erwin, 1497 Chapel.  
 1917 Kleiner, Simon Bretzfelder, 41 Trumbull.  
 1935 Krosnick, Morris Yale, 1195 Chapel.  
 1935 Kuh, Clifford, 31 Howe.  
 1937 Kushlan, Samuel Daniel, New Haven Hosp.  
 1936 Lavietes, Paul Harold, 789 Howard ave.  
 1915 Lear, Maxwell, 1172 Chapel.  
 1935 Leddy, Percy Allen, 109 College.  
 1923 Levin, Hyman Alexander, 1142 Chapel.  
 1920 Levy, Daniel Frederick, 5 College.  
 1905 Lewis, Dwight Milton, 169 Church.  
 1923 Lewis, Robert Morton, 52 Trumbull.  
 1911 Linde, Joseph Irving, City Hall.  
 1927 Lindsay, Merrill Kirk, 434 Temple.  
 1934 Linskog, Gustaf Elmer, 789 Howard ave.  
 1919 Little, Herman Clark, 303 Whitney ave.  
 1927 Logan, William Joseph, 412 Whalley ave.  
 1905 Ludington, Nelson Amos, 1252 Chapel.  
 1926 MacCready, Paul Beattie, 442 Temple.  
 1937 MacNish, J. Francis, 45 Trumbull.  
 1900 Maher, James Stephen, 261 Orange.  
 1889 Maher, Stephen John, 405 Orange.  
 1878 Mailhouse, Max, 195 Church.  
 1927 Marshall, Carter Lee, 198 Dixwell ave.  
 1928 Marvin, Harold Myers, 303 Whitney ave.  
 1921 Massa, Anthony Francis, 697 Elm.  
 1931 Mastroianni, Luigi, 248 Bradley.  
 1925 Maurer, Lloyd Leslie, 41 Trumbull.  
 1920 Maynard, Harry Hilts, 882 Howard ave.  
 1934 McAlenney, Paul Francis, Jr., 79 Trumbull.  
 1933 McCarthy, James S., 640 Whitney ave.  
 1893 McDonnell, Ralph Augustine, 158 Whitney ave.  
 1922 McDonnell, Ralph Edward, 158 Whitney ave.  
 1913 McGuire, William Charles, 104 Park.  
 1899 McIntosh, Edward Francis, 307 Alden ave.  
 1916 Mendillo, Anthony Joseph, 45 Trumbull.  
 1933 Mendillo, John Carleton Francis, 45 Trumbull.  
 1930 Mongillo, Frank, 20 Elm.  
 1916 Morse, Arthur Henry, 789 Howard ave.  
 1922 Musselman, Luther Kyner, 215 Whitney ave.

- 1921 Nahum, Louis Herman, 1142 Chapel.  
 1922 Newman, Joseph Thomas, 150 Shelton ave.  
 1914 Nichols, Ralph Wilbur, 57 Trumbull.  
 1932 Nodelman, Jacob, 20 Elm.  
 1933 O'Brasky, Louis, 1172 Chapel.  
 1920 O'Brien, William Henry Joseph, 265 Church.  
 1922 O'Connor, Denis Stanislaus, 158 Whitney ave.  
 1885 Osborne, Oliver Thomas, 1155 Forest rd.  
 1931 Oughterson, Ashley Webster, 789 Howard ave.  
 1936 Palmieri, Michael Walter, 551 Howard ave.  
 1938 Parente, Leonard, 64 Trumbull.  
 1929 Paul, John Rodman, 789 Howard ave.  
 1894 Peck, Robert Ellsworth, 1418 Chapel.  
 1922 Perrins, Harlan Bassett, 59 Trumbull.  
 1925 Peters, John Punnett, 789 Howard ave.  
 1927 Petrelli, Joseph, 455 Orange.  
 1923 Philipson, Samuel, 61 Park.  
 1909 Phillips, Frank Lyman, 405 Temple.  
 1935 Piazza, George Joseph, 78 Orchard.  
 1931 Pinn, Abraham Samuel, 75 Sherman ave.  
 1927 Poole, Allan King, 442 Temple.  
 1916 Porter, Donald Wallace, 58 Trumbull.  
 1938 Poverman, Abraham D., 57 Trumbull.  
 1927 Powell, Wilson, 1266 Forest rd.  
 1925 Powers, Grover Francis, 789 Howard ave.  
 1932 Putnam, Marian Cabot, 333 Cedar.  
 1934 Rademacher, Everett Stanley, 442 Temple.  
 1903 Rand, Richard Foster, 246 Church.  
 1903 Reilly, Francis Henry, 230 Church.  
 1924 Riccitelli, Mariano Louis, 476 Howard ave.  
 1937 Robbins, Clarence Loveridge, 158 Whitney ave.  
 1929 Roberts, Frederick William, 129 Whitney ave.  
 1920 Rogers, Orville Forrest, 109 College.  
 1929 Rogowski, Bernhard Albert, 75 Whitney ave.  
 1932 Rothschild, Morris Loeb, 265 Church.  
 1937 Rubin, George Alan, 723 George.  
 1928 Ruickoldt, Charles Arthur, 71 Olive.  
 1914 Russell, Thomas Hubbard, 57 Trumbull.  
 1922 Russell, Walter Irving, 317 Whalley ave.  
 1920 Russo, Joseph Daniel, 120 Blatchley ave.  
 1921 Ryder, William Harold, 195 Church.  
 1933 Salinger, Robert, 256 Bradley.  
 1910 Sanford, Charles Edwin, 265 Church.  
 1911 Scarbrough, Marvin McRae, 47 Trumbull.  
 1931 Scholl, Robert Frederick, 215 Whitney ave.  
 1924 Scott, Clifton Russell, 215 Whitney ave.  
 1920 Seabury, Robert Brewster, 420 Temple.  
 1916 Segnalla, Ernest, 613 Chapel.  
 1923 Serafin, Peter James, 809 State.  
 1928 Shay, Francis Leo, 368 Alden ave.  
 1923 Shea, Michael Stephen, 500 Howard ave.  
 1915 Sheahan, William Lawrence, 59 College.  
 1923 Silverberg, Samuel Joshua, 201 Park.  
 1913 Skiff, Stuart Ernest, 1194 Chapel.  
 1923 Smith, Charles Seaver, 59 College.  
 1914 Smith, Marvin, 356 Humphrey.  
 1926 Smith, Norman Nathaniel, 1558 Chapel.  
 1927 Snurkowski, Charles Vincent, 487 Orange.  
 1938 Speir, Edward B., 789 Howard ave.  
 1927 Sperandeo, Anthony, 538 Chapel.  
 1896 Sperry, Frederick Noyes, 85 Whitney ave.  
 1907 Standish, Frank Billings, 193 York.  
 1936 Stevens, Marvin Allen, 256 Bradley.  
 1916 Stewart, Harry Eaton, 262 Bradley.  
 1925 Stone, Emerson Law, 129 Whitney ave.  
 1920 Strauss, Maurice Jacob, 41 Trumbull.  
 1931 Sullivan, Albert Joseph, 303 Whitney ave.  
 1897 Sullivan, John Francis, 1346 Chapel.  
 1923 Sullivan, Thomas Joseph, 495 Orange.  
 1886 Swain, Henry Lawrence, 195 Church.  
 1914 Sweet, Grover Cleveland, 1537 Chapel.  
 1921 Sword, Brian Collins, 16 Dwight.  
 1921 Tanner, Monroe Julius, 26 High.  
 1938 Thompson, Kenneth W., 789 Howard Ave.  
 1936 Thompson, Lloyd James, 333 Cedar.  
 1915 Thoms, Herbert, 789 Howard ave.  
 1911 Tileston, Wilder, 442 Temple.  
 1922 Toole, Frank Edward, 419 Whalley ave.  
 1909 Townshend, Raynham, 57 Trumbull.  
 1911 Tracy, Robert Graham, 493 Howard ave.  
 1925 Trask, James Dowling, 789 Howard ave.  
 1923 Tyler, Margaret, 158 Whitney ave.  
 1896 Verdi, William Francis, 27 Elm.  
 1924 Vestal, Paul William, 79 Trumbull.  
 1926 Wakeman, Edward Taylor, 129 Whitney ave.  
 1919 Weil, Arthur, 85 Whitney ave.  
 1924 Weiner, Joseph, 1172 Chapel.  
 1902 Welch, Harry Little, 59 College.  
 1907 Wheatley, Louis Frederick, 61 Trumbull.  
 1916 Whiting, Leonard Clark, 121 Whitney ave.  
 1906 Whittemore, Edward Reed, 33 Whitney ave.  
 1936 Wies, Frederick Albert, 303 Whitney ave.  
 1931 Willner, Otto, 61 Trumbull.  
 1935 Wilson, Hugh Monroe, 789 Howard ave.  
 1927 Wilson, Louise Whitman Farnam, 616 Prospect.  
 1931 Wilson, William Rives, 58 Trumbull.  
 1899 Winne, William Nelson, 1020 Whalley ave.  
 1921 Winternitz, Milton Charles, 310 Cedar.  
 1922 Winters, Sidney, 1175 Chapel.  
 1895 Wurtenburg, William Charles, 445 St. Ronan.  
 1935 Yannet, Herman, 789 Howard ave.  
 1924 Yavis, John Constantine, 115 Dwight.  
 1920 Yudkin, Arthur Meyer, 257 Church.  
 1933 Zimmerman, Harry Martin, 310 Cedar.
- NORTH HAVEN
- 1913 Lang, William P., "The Cedars".  
 1934 Minitier, John Joseph, Broadway.  
 1923 Taylor, Sterling Price, Broadway and Post rd.
- SEYMOUR
- 1938 Chobian, Joseph A., 159 Main.  
 1934 Rogol, Oscar, 135 Main.
- WALLINGFORD
- 1935 Boyarsky, Harry Morton, 60 Center.  
 1932 Breck, Charles Arthur, 176 N. Main.  
 1908 Buffum, John Harold, 145 N. Main.  
 1930 Carrozzella, John Christy, 50 S. Main.  
 1905 Lyman, David Russell, Gaylord Farm Sanatorium.  
 1911 McGaughey, James David, 261 Center.  
 1916 Morriss, William Haviland, Gaylord Farm Sanatorium.  
 1936 Murphy, Thomas Basil, 342 Center.  
 1925 Riordan, William James, 261 Center.



- 1919 Sheehan, Mark Thomas, 1 Williams.  
1933 Wilson, George Campbell, Gaylord Farm Sanatorium.

## WATERBURY

- 1924 Allen, Harry Everett, 30 Prospect.  
1929 Atkins, Samuel Maurice, 63 Central ave.  
1923 Audet, Charles Henry, 95 N. Main.  
1910 Barber, Walter Lewis, Jr., 87 N. Main.  
1937 Berman, Bernard Alfred, 161 N. Main.  
1908 Bevans, Theodore Frank, 111 W. Main.  
1931 Bizzozero, Orpheus Joseph, 20 Grove.  
1922 Boardman, Emma Irene, R. F. D. No. 2.  
1910 Brennan, Patrick Joseph, 135 W. Main.  
1928 Brown, Abe Solomon, 58 Central ave.  
1894 Brown, Charles Henry, 57 N. Main.  
1938 Cantor, Philip J., 58 Plaza ave.  
1935 Collins, Joseph Osborn, Waterbury Hospital.  
1932 Corbett, Herbert John, 14 Central ave.  
1928 Cottiero, Thomas, 21 Cooke.  
1907 Cowan, Isabella, 79 N. Main.  
1907 Deming, Dudley Brainard, 67 Willow.  
1912 Dillon, John Henry, 325 E. Main.  
1927 Dreher, Alfred Charles, 171 N. Main.  
1902 Dwyer, Patrick James, 95 N. Main.  
1917 Dye, John Sinclair, 111 W. Main.  
1927 Edlin, Charles, 24 Central ave.  
1916 Egan, John Joseph, 83 Willow.  
1905 Engelke, Charles, 24 Central ave.  
1922 Fabricant, Samuel Elmer, 9 Cooke.  
1905 Farrell, John Edward, 21 Holmes ave.  
1937 Finkelstein, William, 103 N. Main.  
1926 Finn, Alfred Joseph, 110 Grand.  
1926 Fitzpatrick, Edward Earl, 83 E. Main.  
1927 Foster, John Hess, 103 N. Main.  
1928 Freiheit, John Martin, 195 Grove.  
1937 Fruin, John William, 76 Center.  
1909 Gancher, Jacob, 275 N. Main.  
1923 Godfrey, Edward John, 135 W. Main.  
1914 Good, William Murray, 63 Center.  
1894 Goodenough, Edward Winchester, 29 Ponham.  
1915 Green, Jacques Henry, 171 N. Main.  
1923 Hackett, John Francis, 154 Grand.  
1933 Harvey, Joseph LeRoy, 222 Ledgeside ave.  
1911 Herr, Edward Albert, 43 Central ave.  
1930 Herrmann, Albert Edward, 101 N. Main.  
1931 Hetzel, Joseph Linn, 103 N. Main.  
1934 Hill, Frank Joseph, 863 Bank.  
1919 Jackson, Andrew Joseph, 20 E. Main.  
1929 Jackson, Edward Joseph, 76 Center.  
1922 Johnson, Arthur August, 32 Willow.  
1915 Johnston, Ernest Hillock, 18 Savings.  
1914 Kirschbaum, Edward Harry, 20 Grove.  
1922 Larkin, Charles Lewis, 101 N. Main.  
1910 Lawlor, Michael Joseph, 158 N. Main.  
1907 Leonard, George Arthur, 79 N. Main.  
1924 Lombardi, Pasquale Frederick, 136 Willow.  
1897 Maloney, Daniel Joseph, 79 N. Main.  
1922 Martin, James Smith, 135 W. Main.  
1930 Mason, Broadstreet Henry, Waterbury Hosp.  
1916 McGrath, John Henry, 309 E. Main.  
1906 McLarney, Thomas Joseph, 27 Cherry.  
1925 Merriman, Merritt Heminway, 115 Prospect.

- 1897 Moriarity, James Ligouri, 52 Holmes ave.  
1928 Morrill, Harold Frost, 300 W. Main.  
1928 Mueller, Richard Albert, 287 N. Main.  
1932 Mullen, John Joseph, 135 W. Main.  
1929 Neuswanger, Chris Harold, 89 N. Main.  
1937 Parker, Thomas E., 416 S. Main.  
1923 Platt, Irving Smith, 77 N. Main.  
1901 Pomeroy, Nelson Asa, 96 Hillside ave.  
1931 Pyle, Edwin, 95 N. Main.  
1916 Quinn, Raymond James, 730 Baldwin.  
1920 Root, James Harold, 103 N. Main.  
1925 Ruby, Max Harold, 47 Prospect.  
1914 Ryder, Raymond Harrison, 52 Central ave.  
1931 Sandulli, Gaetano Renato, 347 N. Main.  
1928 Santoro, Grace Marie, 95 N. Main.  
1933 Shea, Vincent Timothy, 757 Baldwin.  
1906 Smith, Egbert Livingston, 292 W. Main.  
1929 Smith, Goodrich Truman, 30 W. Main.  
1915 Spicer, Edmund, 292 W. Main.  
1931 Staneslow, John Stanislovaitis, 95 N. Main.  
1924 Stettbacher, Henry John, 28 Prospect.  
1906 Swenson, Andrew Clay, 164 W. Main.  
1916 Vastola, Anthony P., 103 N. Main.  
1920 Webber, Edwin Russell, 95 N. Main.

## WEST HAVEN

- 1929 Appell, Harold Seymour, 354 Campbell ave.  
1935 D'Esopo, Joseph Nicholas, W. W. Winchester Hosp.  
1909 Gilmore, Joseph Leo, 336 Main.  
1904 Kowalewski, Victor Alexander, 597 Campbell ave.  
1930 Milano, Nicola Antonio, 271 Elm.  
1923 O'Connell, William Michael, 295 Main.  
1915 Rogers, Platt Harrison, 228 Elm.  
1933 Snavely, Marion Elizabeth, 546 Washington ave.  
1928 Soper, Willard Burr, W. W. Winchester Hosp.  
1935 Wilson, Julius Lane, W. W. Winchester Hosp.

## OUT OF COUNTY

- 1935 Bell, Jerry Sheridan, 39 Prospect pl., Brooklyn, N. Y.  
1935 Bergin, Edward P., 440 E. 141 st., N. Y. C.  
1928 Brown, Paul Hemingway, 52 South, Stamford.  
1931 Dryfus, Milton Leopold, 130 W. 57th st., N. Y. C.  
1921 Dunham, Ethel Collins, 3312 N st., N. W., Washington, D. C.  
1937 Eliot, Martha May, 1815 45th N. W., Washington, D. C.  
1933 Emery, Edgar VanNorman, 7390 Norwood ave., St. Louis, Mo.  
1934 Ferguson, John Archibald, 63 Robinson ct., Burlington, Vt.  
1892 Ferris, Harry Burr, 368 Bahia Vista ave., Sarasota, Fla. (Oct.-May); Clinton (May-Oct.).  
1923 Garcia, Alphonso G., Moosup.  
1896 Graves, Frederick George, Bethlehem.  
1921 Greenway, James Cowan, Meads pt., Greenwich.  
1936 Harvey, Daniel Foster, 153 N. Beacon st., Hartford.  
1931 Hennessy, James Joseph, Cedarcrest San., Hartford.  
1935 \*Howes, Edward Lee, Howard University, Washington, D. C.  
1936 Klumpp, Theodore George, Dept. of Agriculture, Food and Drug Admin., Washington, D. C.

- 1932 MacDonald, John Joseph, 348 Ogden st., Jersey City, N. J.  
 1917 Merrill, William Truman, 66 Fuller lane, East Milton, Mass.  
 1929 Russell, Ernest Frederick, Riven Rock, Santa Barbara, Cal.  
 1929 Shure, Abraham Lewis, University Hospitals, Iowa City, Iowa.  
 1891 Skinner, Clarence Edward, 51 Madison ave., New York City.  
 1900 Teele, Julia Ernestine, Box 31, Hall-Brooke San., Greens Farms, Conn.  
 1924 Whiteside, George Shattuck, 1212 Fifth ave., New York City.

Total number 505

#### NEW LONDON COUNTY

- President*, DAVID SUSSLER, M.D., 65 Main Street, Norwich.  
*Vice-President*, EDMUND L. DOUGLASS, M.D., 188 Thames Street, Groton.  
*Secretary*, CARL H. WIES, M.D., 58 Huntington Street, New London.  
*Councilor*, GEORGE H. GILDERSLEEVE, M.D., 310 Main Street, Norwich.

#### Censors

(One elected annually for a term of three years)

- 1936 DAVID SUSSLER, M.D., 65 Main Street, Norwich, *Chairman*.  
 1937 THOMAS J. MURRAY, M.D., 34 Huntington Street, New London.  
 1938 JAMES J. DONOHUE, M.D., 43 Broadway, Norwich.

#### Committee on Public Policy and Legislation

(Appointed annually by the President)

- CHARLES J. SATTI, M.D., 36 Huntington Street, New London, *Chairman*.  
 LOUIS M. ALLYN, M.D., 22 Library Street, Mystic.  
 JOHN G. RAYMER, M.D., 40 Shetucket Street, Norwich.

#### Committee on Medical Ethics and Deportment

(One appointed annually by the President for a term of 5 years)

- FREDERIC H. DART, M.D., 61 Main Street, Niantic, *Chairman*.  
 THURMAN P. MAINE, M.D., 64 Washington Street, Mystic, (1 year).  
 LEONE F. LAPIERRE, M.D., 287 Main Street, Norwich, (2 years).  
 DANIEL SULLIVAN, M.D., 58 Huntington Street, New London, (3 years).  
 EDMUND L. DOUGLASS, M.D., 188 Thames Street, Groton, (4 years).

Annual Meeting, First Thursday in April.

Semi-Annual Meeting, First Thursday in October.

#### COLCHESTER

- 1935 Friedman, Irving, 15 Hayward ave.  
 1913 Howland, Edward Joseph, S. Main.  
 1921 Pendelton, Cyrus Edmund.

#### EAST LYME

##### NIANTIC

- 1906 Atkinson, Edward, Main.

- 1887 Dart, Frederick Howard, 61 Main.  
 1934 Jameson, Rose Howe, State Farm for Women.  
 1934 MacLeod, Edith Alice, State Farm for Women.  
 1936 Ward, Lawrence Shapiro.

#### GRISWOLD

##### JEWETT CITY

- 1937 Ansell, Harvey Berle, 30 N. Main.  
 1937 Barry, Joseph Charles.  
 1916 McLaughlin, John Henry, 37 Main.  
 1934 O'Neill, Martin Leo, 8 Park sq.

#### GROTON

- 1916 Barnum, Charles Gardiner, 230 Thames.  
 1918 Douglass, Edmund Latham, 188 Thames.  
 1934 Hewes, Carlisle Tyson, 242 Thames.  
 1937 Lund, Frederic Albert, 213 Shore ave.

#### NOANK

- 1904 Hill, William Martin, Church.

#### LEDYARD

##### GALE'S FERRY

- 1937 Moore, Maurice R.,

#### LYME

- 1927 Ely, Julian Griffin.

#### HADLYME

- 1924 Raynolds, Randolph.

#### MONTVILLE

##### UNCASVILLE

- 1936 Lubchansky, Jacob Harris.  
 1929 Rasmussen, Hans Norman.

#### NEW LONDON

- 1933 Baron, Shirley Harold, 309 State.  
 1933 Becker, Joseph, 325 State.  
 1928 Blank, Eric Henry, 240 Williams.  
 1933 Brosnan, John Francis, 34 Huntington.  
 1927 Burdsall, Elijah Sylvester, 187 Williams.  
 1937 Cantrell, Roy Foster, U. S. Submarine Base.  
 1916 Cheney, George Philip, 179 Montauk ave.  
 1936 Comstock, Edward Richard, 106 State.  
 1909 Dunn, Frank Martin, 100 State.  
 1931 Dyer, Charles Edward, 102 Montauk ave.  
 1936 Ferguson, Helen Knox, 508 Montauk ave.  
 1906 Ganey, Joseph Matthew, 205 Williams.  
 1934 Gipstein, Edward, 58 Huntington.  
 1907 Harrington, James Leon, 231 State.  
 1922 Hendel, Isidor, 50 State.  
 1902 Henkle, Emanuel Alex, 51 Federal.  
 1934 Henkle, Robert Theodore, 51 Federal.  
 1895 Heyer, Harold Hankinson, 70 Colt.  
 1936 Itzkowitz, Hyman, 325 State.  
 1921 Kaufman, Charles, 308 State.  
 1924 Labensky, Alfred, 85 Federal.  
 1909 Lawson, Stuart Johnston, 116 Federal.  
 1921 Lena, Hugh Francis, 154 Broad.  
 1931 Loiacono, Anthony Joseph, 325 State.  
 1935 Ludlow, George Craig, 39 Glenwood ave.  
 1934 Morse, Willard Jackson, 32 Channing.  
 1921 Murray, Thomas J., 34 Huntington.  
 1932 Rabinovitch, Alec., 309 State.  
 1936 Rapp, Albert Grant, 325 State.



1929 Satti, Charles John, 36 Huntington.  
 1933 Scoville, Dorothea Haven, 40 Channing.  
 1914 Smail, Martin Lawson, 85 State.  
 1921 Soltz, Thomas, 26 Main.  
 1929 Starr, Richard Mallory, 45 Huntington.  
 1904 Sullivan, Daniel, 58 Huntington.  
 1899 Taylor, John Clifton, 159 State.  
 1933 Taylor, Robert Nelson, 159 State.  
 1925 Warren, Hill Freeman, 100 State.  
 1922 Wellington, Harold Wentworth, 309 State.  
 1935 Wies, Carl Hendricks, 58 Huntington.  
 1913 Wilson, Frank Emery, 302 State.  
 1920 Woodruff, Thomas Adams, 44 Mott ave.

## NORWICH

1910 Agnew, Robert Robertson, 257 Main.  
 1908 Brophy, Edward Joseph, 10 Shetucket.  
 1916 Callahan, John William, 308 Main.  
 1915 Campbell, Hugh Baird, "Uncas-on-Thames".  
 1935 Carr, Vanderveer Tabor, State Hospital.  
 1934 Carson, Robert James, State Hospital.  
 1935 D'Elia, Arthur Joseph, State Hospital.  
 1925 Dixon, Henry Campbell, 16 Franklin.  
 1897 Donohue, James Joseph, 43 Broadway.  
 1916 Driscoll, William Thomas, 257 Main.  
 1916 Freeman, Albert Clark, 54 Broadway.  
 1898 Gildersleeve, Charles Child, 310 Main.  
 1927 Gildersleeve, George Harold, 310 Main.  
 1922 Gray, Harrison, 257 Main.  
 1935 Hale, Virginia Anne, State Hospital.  
 1935 Higgins, Harold William, 257 Main.  
 1898 Higgins, Harry Eugene, 257 Main.  
 1914 LaPierre, Arnaud Julian, 287 Main.  
 1907 LaPierre, Leone Franklin, 287 Main.  
 1935 Lukoski, Walter Anthony Francis, 16 Franklin.  
 1936 Mahoney, Joseph John, 105 Main.  
 1922 Manwaring, Ier Jay, Disco bldg.  
 1922 Markoff, Kopland Karl, 16 Franklin.  
 1934 Morse, Lyman Roger, "Uncas-on-Thames".  
 1935 Neumann, Virgil Frank, "Uncas-on-Thames".  
 1935 O'Connell, Patrick Henry, 287 Main.  
 1933 Ogden, Arthur White, State Hospital.  
 1936 Osgood, Charles, 257 Main.  
 1934 Quintiliani, Albert, 43 Broadway.  
 1930 Raymer, John George, 40 Shetucket.  
 1930 Ricksher, Charles, State Hospital.  
 1936 Riendeau, Pauline Laure, P. O. Box 476.  
 1935 Sears, Lewis, 257 Main.  
 1929 Suplicki, John William, 255 Main.  
 1921 Sussler, David, 65 Main.  
 1925 Thompson, Clarence George, 257 Main.  
 1938 Tombari, Seraphino Paul, 317 Main.  
 1931 Urquhart, Robert Glen, "Uncas-on-Thames".  
 1934 Waterman, Chester, State Hospital.  
 1935 Weidman, William Harold, "Uncas-on-Thames".  
 1932 Wener, William Victor, 130 Main.  
 1933 Whitty, Charles Aloysius, "Uncas-on-Thames".

## TAFTVILLE

1933 Archambault, Henry Allard, 2 N. Second ave.  
 1935 Bergendahl, Harold Andrew, 1 S. Second ave.

OLD LYME  
BLACK HALL

1909 Devitt, Ellis King.  
 1932 Griswold, Matthew.

## STONINGTON

1934 Haliday, Earle George, 168 Water.  
 1934 Veal, William Thomas, 99 Water.  
 1912 \*Williams, Charles Mallory, 174 Water.

## MYSTIC

1907 Allyn, Louis Maxson, 22 Library.  
 1894 Gray, William Henry, 27 Willow.  
 1928 Hill, Edward Roland, 17 E. Main.  
 1932 Leon, Abraham Joseph, 31 New London rd.  
 1915 Maine, Thurman Park, 64 Washington.  
 1937 Throckmorton, Verl John, 31 Willow.

## WATERFORD

1913 O'Brien, John Francis, "The Seaside".  
 1931 Thompson, Lawrence Everett, "The Seaside".

Total number 121

## TOLLAND COUNTY

*President*, ALFRED SCHIAVETTI, M.D., 107 Main Street, Stafford Springs.

*Vice-President*, HENRY L. CLOW, M.D., Mansfield State Training School and Hospital, Mansfield Depot.

*Secretary*, FRANCIS H. BURKE, M.D., 27 Park Street, Rockville.

*Councilor*, CHARLES T. LAMOURE, M.D., Mansfield State Training School and Hospital, Mansfield Depot.

## Censors

(One elected annually for a term of three years)

FRANCIS M. DICKINSON, M.D., 38 Elm Street, Rockville, *Chairman*.

ELLIOTT H. METCALF, M.D., 50 Elm Street, Rockville.

JOHN M. GIVENS, M.D., 54 East Main Street, Stafford Springs.

*Committee on Public Policy and Legislation*

(Appointed annually by the President)

FRANCIS H. BURKE, M.D., 27 Park Street, Rockville, *Chairman*.

ROY C. FERGUSON, M.D., 57 Union Street, Rockville.

HARRY H. MOORE, M.D., 46 East Main Street, Stafford Springs.

*Committee on Medical Ethics and Department*

(Councilor and one appointed annually by the President for a term of five years)

CHARLES T. LAMOURE, M.D., Mansfield State Training School, Mansfield Depot, *Councilor*.

ELLIOTT H. METCALF, M.D., 50 Elm Street, Rockville, *Chairman*.

FRANCIS MCL. DICKINSON, M.D., 38 Elm Street, Rockville.

RALPH B. THAYER, M.D., Main Street, Somers.

WILLIAM SCHNEIDER, M.D., 34 Union Street, Rockville.

FRANK B. CONVERSE, M.D., West Willington.

FRANCIS H. BURKE, M.D., 27 Park Street, Rockville, *Recorder*.

Annual Meeting, Third Tuesday in April.

Semi-Annual Meeting Third Tuesday in October.

## COVENTRY

## SOUTH COVENTRY

- 1937 Higgins, Gould S.  
1891 Higgins, William Lincoln.

## ELLINGTON

- 1937 Whitman, Morris B., Maple.

## MANSFIELD

## MANSFIELD DEPOT

- 1934 Clow, Henry Leon, State Training School and Hospital.  
1934 Fenimore, Benjamin Bertram, State Training School and Hospital.  
1937 Gilmour, Omar Wood, State Training School and Hospital.  
1930 Hankins, Melissa Millner, State Training School and Hospital.  
1918 LaMoure, Charles TenEyck, State Training School and Hospital.

## SOMERS

- 1921 Thayer, Ralph Bruce, Main.

## STAFFORD

## STAFFORD SPRINGS

- 1928 Bard, George Percival, 53 E. Main.  
1934 Givens, John McClure, 54 E. Main.  
1908 Hanley, John Patrick, 15 Church.  
1921 Moore, Harry, 46 E. Main.  
1935 Schiavetti, Alfred, 107 Main.

## VERNON

## ROCKVILLE

- 1937 Beckwith, Donald Macfarlane, Prospect at N. Park.  
1933 Burke, Francis Henry, 27 Park.  
1908 Dickinson, Francis McLean, 38 Elm.  
1923 Ferguson, Roy Cameron, 57 Union.  
1918 Flaherty, John Edward, 42 Elm.  
1921 Metcalf, Elliott Harrison, 50 Elm.  
1897 O'Loughlin, Thomas Francis, 26 N. Park.  
1931 Schneider, William, 34 Union.

## WILLINGTON

## WEST WILLINGTON

- 1928 Converse, Frank Benjamin.

## OUT OF COUNTY

- 1931 Aiken, Sidney, Cor. Main and E. Centre sts., Manchester.  
1937 Jordan, Paul H., Apt. 7, 630 Packard st., Ann Arbor, Mich.

Total number 25

## WINDHAM COUNTY

*President*, BRAE RAFFERTY, M.D., 807 Main Street, Willimantic.

*Vice-President*, WILLIAM MAC SHEPARD, M.D., 66 Main Street, Putnam.

*Secretary*, RALPH L. GILMAN, M.D., Storrs, Conn.

*Councilor*, ROBERT C. PAINE, M.D., Thompson.

## Censors

(One elected annually for a term of three years)

EDWARD J. OTTENHEIMER, M.D., 29 North Street, Willimantic.

KARL T. PHILLIPS, M.D., 66 Main Street, Putnam.

FRANK P. TODD, M.D., 178 Main Street, Danielson.

*Committee on Public Policy and Legislation*

(Elected annually)

JOSEPH A. GIROUARD, M.D., 19 Union Street, Willimantic.

WILLIAM MAC SHEPARD, M.D., 66 Main Street, Putnam.

KARL T. PHILLIPS, M.D., 66 Main Street, Putnam.

*Committee on Medical Ethics and Deportment*

(Two appointed annually by the President  
for a term of three years)

ARTHUR A. CHASE, M.D., Railroad Avenue, Plainfield.

KENNETH K. KINNEY, M.D., 29 North Street, Willimantic.

EDWARD J. OTTENHEIMER, M.D., 29 North Street, Willimantic.

ROBERT C. PAINE, M.D., Thompson.

KARL T. PHILLIPS, M.D., 66 Main Street, Putnam.

MICHAEL D. RIORDAN, M.D., 29 North Street, Willimantic.

CECIL R. GARCIN, M.D., 7 Broad Street, Danielson,  
*Recorder*.

*Committee on Medical Economics*

GERARD M. CHARTIER, M.D., 136 Main Street, Danielson.

JOSEPH A. LAPALME, M.D., 158 Main Street, Putnam.

Annual Meeting, Third Thursday in April.

Semi-Annual Meeting, Third Thursday in October.

## CANTERBURY

- 1936 Baldwin, Helen.

## HAMPTON

- 1914 Marsh, Arthur Drought.

## KILLINGLY

## DANIELSON

- 1935 Chartier, Gerard Marcel, 136 Main.  
1937 Denison, Charles Neilson, Dayville, Killingly.  
1928 Garcin, Cecil Redvers, 7 Broad.  
1938 Lambert, George S., 41 Broad.  
1909 Perreault, Joseph Napoleon, 43 Main.  
1919 Tanner, Warren Avery, 36 Academy.  
1920 Todd, Frank Paige, 178 Main.

## PLAINFIELD

- 1903 Chase, Arthur Alverdo, Railroad ave.  
1933 Gulino, Angelo James.

## PUTNAM

- 1934 Chapnick, Morton Herman, 168 Main.  
1930 Dean, Florence Franklin, 32 S. Main.  
1927 LaPalme, Joseph Antonio, 158 Main.  
1919 Murphy, Bernard Patrick, 205 Main.  
1921 Phillips, Karl Tristram, 66 Main.  
1922 Russell, John Jarvis, Bridge and Main.  
1934 Shepard, William Mac, 66 Main.

## THOMPSON

- 1903 Paine, Robert Child.

## NORTH GROSVERNODALE

- 1936 Roy, Joseph Lambert.



## WINDHAM

## WILLIMANTIC

1935	Arnold, Morton, 781 Main.
1901	Girouard, Joseph Arthur, 19 Union.
1896	Hills, Laura Heath, 727 Main.
1913	Jenkins, Charles Albert, 715 Main.
1908	Keating, William Patrick.
1928	Kinney, Kenneth Kyle, 29 North.
1925	Ottenheimer, Edward Joseph, 29 North.
1932	Rafferty, Francis Brae, 807 Main.
1916	Riordan, Michael Davitt, 29 North.
1936	Roch, George Emile, 33 Church.
1937	Rothblatt, Reuben, 33 Church.
1914	Shea, Richard Edward, 850 Main.
1914	Smith, Fred Morse, 736 Main.
1929	Spector, Nathan, 670 Main.
1935	Vernon, Sidney, 784 Main.

## WOODSTOCK

## EAST WOODSTOCK

1913	Pike, Ernest Reginald.
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## OUT OF COUNTY

1910	Downing, Francis, 287 Main st., Norwich.
1883	Foster, Warren Woden, 4000 Cathedral ave., Washington, D. C.
1932	Gilman, Ralph Lawrence, Storrs.

Total number 39

## SUMMARY

FAIRFIELD COUNTY	359
HARTFORD COUNTY	512
LITCHFIELD COUNTY	72
MIDDLESEX COUNTY	65
NEW HAVEN COUNTY	505
NEW LONDON COUNTY	121
TOLLAND COUNTY	25
WINDHAM COUNTY	39
TOTAL	1698



# Alphabetical Roll of Members

With date and place of graduation.

- Aaronson, M. S., Univ. & Bellevue, '13, Ansonia.  
 Abbey, E. A., B.A., Mt. St. Mary's, '26, Georgetown, '30, New Haven.  
 Abrahams, M., Tufts, '31, New Canaan.  
 Abrashkin, M. D., Maryland, '32, New Haven.  
 Adam, F. S., Ph.B., Boston U., '21, Yale, '25, Canaan.  
 Adzima, J. M., Univ. Md., '27, Bridgeport.  
 Affinito, T., B.S., Yale, '26, McGill, '31, Meriden.  
 Agnew, R. R., Yale, '08, Norwich.  
 Aiken, S., Toronto U., '29, Manchester (Tolland Co.)  
 Alderman, I. S., Ph.B., Yale, P. & S., N. Y., '19, New Haven.  
 Allen, E. P., B.A., Lebanon Valley (Pa.) Coll., '20, Yale, '24, New Haven.  
 Allen, H. E., B.A., Bowdoin, '15, Bowdoin, '19, Waterbury.  
 Allen, H. S., Yale, '01, Woodbury.  
 Allen, M. F., Med. Chi., Phila., '95, New Haven.  
 Allen, W. M., B.A., Haverford, '16, Johns Hopkins, '20, Hartford.  
 Alling, A. N., B.A., Yale, '86, P. & S., N. Y., '91, New Haven.  
 Allyn, L. M., Univ. Pa., '03, Mystic.  
 Alpert, M., B.S., Yale, Yale, '28, Bridgeport.  
 Alpert, R. H., Yale, '13, New Haven.  
 Alu, A. F., Yale, '20, Ansonia.  
 Amatruda, F. G., B.A., Yale, '20, Yale, '23, New Haven.  
 Amos, I. L., McGill, '26, Danbury.  
 Amoss, H. L., B.S., Univ. Ky., '05; M.S., Univ. Ky., '07; D.P.H., Harvard, '12; Sc.D. (Hon.) Geo. Wash., '22, Harvard, '11 Greenwich.  
 Andrus, O. B., B.A., Dartmouth, '28, Univ. & Bellevue, '32, Devon.  
 Andrews, E. M., Univ. Maine, '25; Harvard, '30, Hartford.  
 Angus, L. R., B.A., Toronto, '25, Toronto U., '28, Hartford.  
 Ansell, H. B., Tufts, '32, Jewett City.  
 Antell, M. J., B.S., Middlebury, '25, Univ. Vt., '29, Bridgeport.  
 Antupit, L., B.S., Trinity, '19, Jefferson, '23, Hartford.  
 Appell, H. S., Tufts, '27, West Haven.  
 Appell, P. H., Univ. & Bellevue, '23, Bristol.  
 Apsel, A., Ph.G., Brooklyn Coll. Phar., '13, L. I. Coll. Hosp., '18, Bridgeport.  
 Apter, H., B.A., Geo. Wash., '31, Geo. Wash., '34, Hartford.  
 Archambault, H. A., Tufts, '27, Taftville.  
 Armstrong, G. G., U. City N. Y., '91, Middletown.  
 Arnold, H. B., B.A., Yale, '23, Yale, '26, New Haven.  
 Arnold, H. S., B.A., Yale, '00, Yale, '03, New Haven.  
 Arnold, M., B.A., Harvard, '25, Harvard, '29, Willimantic.  
 Arons, M. R., Ph.B., Yale, '25, Univ. Md., '30, Hartford.  
 Ashcroft, A. D., P. & S. Coll., '35, Stratford.  
 Ashley, A. C., Univ. Va., '26, New Hartford.  
 Atha H. G., Ph.B., Brown U., '27, Tufts, '34, Thomaston.  
 Atkins, S. M., Tufts, '22, Waterbury.  
 Atkinson, E., Univ. Vt., '93, Niantic.  
 Audet, C. H., Univ. Md., '17, Waterbury.  
 Austin, A. E., B.A., Amherst, M.A., Amherst, '04, Jefferson, '05, Old Greenwich.  
 Awdziewicz, F. J., B.S., Yale, '29, Yale, '32, Stamford.  
 Backer, M., Yale, '24, Bridgeport.  
 Backus, H. S., L. I. Coll. Hosp., '03, Hartford.  
 Bacon, L. W., B.A., Yale, '88, Yale, '92, New Haven.  
 Bailey, H., B.A., Yale, '19, Univ. Md., '22, Hartford.  
 Bailey, N. H., P. & S., Balt., '11, Hartford.  
 Baker, P. G., B.S., Univ. Vermont, '30, Univ. Vermont, '33, Winsted.  
 Baldwin, C. T., Bellevue, '83, Derby.  
 Baldwin, H., B.A., Wellesley, '88, Wom. Med., N. Y., '92, Canterbury.  
 Baldwin, W. P., B.A., Yale, '88, Yale, '90, N.Y. Homeo, '91, New Haven.  
 Bancroft, H. A., Albany Med., '16, Hartford.  
 Banks, D. T., Fordham, '12, Bridgeport.  
 Bannon, F. M., Univ. Vt., '28, Stamford.  
 Barber, W. L., Jr., B.A., Yale, '03, Univ. & Bellevue, '07, Waterbury.  
 Bard, G. P., N. Y. Homeo, '00, Stafford Springs.  
 Barker, A. J., Bellevue, '97, Torrington.  
 Barker, C., Dartmouth, '13, New Haven.  
 Barnes, F. H., N. Y. Homeo, '96, Stamford.  
 Barnes, W. S., Ph.B., Yale, '95, Yale, '97, New Haven.  
 Barnum, C. G., B.A., Middlebury Coll., '05; M.A., Middlebury Coll., '07, Yale, '11, Groton.  
 Baron, S. H., Cornell, '27, New London.  
 Barrett, W. J., Md. Med., '04, New Haven.  
 Barry, J. C., Boston U., '33, Jewett City.  
 Barstow, R. I., B.A., Union Coll., '29, Jeff., '33, Norfolk.  
 Bartlett, C. J., B.A., Yale, '92; M.A., Yale, '94, '95, New Haven.  
 Bassin, A. L., Rochester, '30, New Haven.  
 Batelli, C. F., B.A., Yale, '25, Yale, '28, New Haven.  
 Battista, A. W., Tufts, '24, New Haven.  
 Bausch, C. P., Tufts, '29, Hartford.  
 Bayne-Jones, S., B.A., Yale, '10; M.A., Johns Hopkins, '17, Johns Hopkins, '14, New Haven.  
 Beach, C. C., Ph.B., Yale, '77, P. & S., N. Y., '82, Hartford.  
 Beach, C. T., Yale, '05, Hartford.  
 Beatman, I., B.S., Trinity, '23, Tufts, '27, Hartford.  
 Beatrice, A. A., Tufts, '29, Bristol.  
 Beauchemin, J. A., Montreal U., '25, Middletown.  
 Beaudry, J. H., McGill, '13, Bridgeport.  
 Beck, E. C., Yale, '26, So. Norwalk.  
 Beck, F. G., Yale, '03, New Haven.  
 Becker, J., B.S., N. Y. U., '26, Univ. & Bellevue, '29, New London.  
 Beckwith, D. M., A.B., Johns Hopkins, '28, Harvard, '34, Rockville.  
 Behan, E. J., McGill, '22, New Haven.  
 Beizer, E., B.A., Harvard, '25, L. I. Coll. Hosp., '30, Hartford.  
 Bell, G. N., Yale, '92, Hartford.  
 Bell, J. S., Ph.G., Valparaiso, '14, Loyola, '18, Brooklyn, N. Y. (New Haven Co.).  
 Bell, J. S., Illinois, '28, Ridgefield, Torrington.  
 Benedict, F. A., P. & S., N. Y., '87, New Haven.  
 Benedict, M. K., Johns Hopkins, '19, New Haven.  
 Benoit, R. J., Georgetown, '26, New Britain.  
 Bergendahl, H. A., Tufts, '33, Taftville.  
 Bergin, E. P., B.A., Georgetown, '27, Georgetown, '31, 440 E. 141st St., N. Y. C.  
 Bergin, T. J., Yale, '99, Cos Cob.  
 Bergman, A., B.S., Stockholm, '89, U. City N. Y., '95, New Haven.  
 Berman, B. A., Tufts, '34, Waterbury.  
 Berman, H. L., B.A., Yale, '13, Yale, '15, New Haven.  
 Bernstein, A. Yale, '08, Bridgeport.  
 Bernstein, D. J., B.S., Univ. Vt., '30, Univ. Vt., '33, Hartford.  
 Bestor, E. L., N. Y. Homeo, '07, Hartford.  
 Bevans, T. F., Univ. Minn., '03, Waterbury.  
 Bidgood, C. Y., B.S., Univ. Va., '19, Univ. Va., '20, Hartford.  
 Biehni, S. L., B.S., Toronto, U., '26, Fairfield.  
 Bienkowski, J. G., B.S., Trinity, '30, Howard, '35, Torrington.  
 Bill, P. W., Ph.B., Yale, '97; P. & S. N. Y., '01, Westport.  
 Bingham, C. T., B.A., Yale, '28, P. & S., N. Y., '32, Hartford.  
 Biram, J. H., Cornell, '10, Hartford.  
 Bird, F. S., B.S., Univ. Vt., '30, Univ. Vt., '33, Bristol.  
 Birdsong, J. L., B.S., Nashville U., '99, Johns Hopkins, '09, Hartford.  
 Bissell, A. H., Litt.B., Princeton, '12, Cornell, '16, Stamford.  
 Bizzozero, O. J., B.S., Univ. Vt., '24, Univ. Vt., '27, Waterbury.  
 Blair, E. H., P. & S., Balt., '06, Hartford.  
 Blake, E. M., Yale, '06, New Haven.  
 Blake, F. G., B.A., Dartmouth, '08, Harvard, '13, New Haven.  
 Blanchard, D. L., B.S., Bowdoin, '27, Yale, '25, Branford.  
 Blank, E. F., Starling, '97, Bridgeport.



- Blank, E. H., Univ. Vt., '25, New London.  
 Blodinger, I. E., Ph.B., Yale, '22, Yale, '25, New Haven.  
 Błogowski, W. J., Georgetown, '27, New Britain.  
 Bloom, D. I., Conn. State, '30, Tufts, '35, Thompsonville.  
 Blum, M., Tulane, '25, New Haven.  
 Blumenthal, E. J., B.S., Yale, '28, L. I. Coll., '32, Ansonia.  
 Blumer, G., M.A., Yale, '07, Cooper, '91, New Haven.  
 Boardman, A. K., Univ. Pa., '99, New Haven.  
 Boardman, E. I., B.A., Smith, '15, Cornell, '20, Waterbury.  
 Bodie, J. A., Tufts, '24, New Haven.  
 Bodie, W. J., Georgetown, '29, Branford.  
 Bodley, G. H., Yale, '07, New Britain.  
 Bogin, M., B.S., Yale, '23, Yale, '26, Bridgeport.  
 Bonoff, Z. A., Yale, '04, New Haven.  
 Booe, J. G., B.A., '16, B.S., '17, Wake Forest Coll. N. C., Med. Coll. Va., '19, Bridgeport.  
 Booth, J. D., B.S., Dartmouth, P. & S., N. Y., '26 Danbury.  
 Borkowski, B. J., Georgetown, '28, Bristol.  
 Botsford, C. P., Yale, '94, Hartford.  
 Bowman, S. H., Hahn, Chicago, '13, Stamford.  
 Boyarsky, H. M., B.S., Tufts, '28, Tufts, '31, Wallingford.  
 Boyd, H., B.S., Allegheny Coll., '15, Harvard, '21, South Manchester.  
 Brackett, A. S., B.A., Yale, '92, Jefferson, '95, Bristol.  
 Bradeen, F. B., Univ. Pa., '99, Essex.  
 Bradley, T. R., Univ. Md., '14, South Norwalk.  
 Brainard, C. B., Ph.B., Yale, '94, Yale, '98, Hartford.  
 Branon, A. W., Jefferson, '13, Hartford.  
 Brayton, H. W., Ph.B., Brown, '06, Harvard, '11, Hartford.  
 Breck, C. A., Ph.B., Yale, '26, Yale, '30, Wallingford.  
 Brecker, F. W., Tufts, '28, East Hartford.  
 Brennan, P. J., Yale, '07, Waterbury.  
 Breslin, J. E., Ph.B., Brown, '21, Johns Hopkins, '25, Pittsfield, Mass., (Hartford Co.).  
 Bretzfelder, K. B., Jefferson, '16, New Haven.  
 Brewer, T. F., Yale, '26, Hartford.  
 Bridge, J. L., B.S., Wesleyan, '88; Ph.D., Clark, '94, Harvard, '03, Hazardville.  
 Bristoll, D. A., B.A., Hanulton, '23, Univ. Pa., '27, New Britain.  
 Brodsky, M. E., B.A., Clark, '19, Northwestern, '26, Bridgeport.  
 Brody, B. S., B.A., Yale, '25, Yale, '28, New Haven.  
 Bronson, W. T., N. Y. U., '98, Danbury.  
 Brophy, E. J., Yale, '04, Norwich.  
 Brosnan, J. F., Tufts, '30, New London.  
 Brown, A. S., B.A., Yale, '23, Yale, '26, Waterbury.  
 Brown, C. H., U. City N. Y., '93, Waterbury.  
 Brown, D. C., Yale, '84, Danbury.  
 Brown, P. H., Univ. Vt., '26, Stamford (New Haven Co.).  
 Bruckner, W. J., B.S., N. Y. Univ., '29, Cornell, '33, New Haven.  
 Bryon, B. A., Bellevue, '90, Norwalk.  
 Bucciarelli, J. A., Temple, '31, New Canaan.  
 Buck, B. J., B.A., Colgate, '22, Harvard, '26, Hartford.  
 Buckley, R. C., B.S., Trinity, '20, Yale, '24, Hartford.  
 Buckley, J. W., Georgetown, '33, Bridgeport.  
 Buckmiller, F. C., Univ. Vt., '14, Bridgeport.  
 Budau, J. H. D., Yale, '00, Milford.  
 Buffum, J. H., Ph.B., Univ. Vt., '96, Univ. Vt., '98, Wallingford.  
 Bull, J. N., P. & S., N. Y., '78, Plainville.  
 Bumstead, J. H., B.A., Yale, '19, Johns Hopkins, '23, New Haven.  
 Bunnell, W. W., B.S., Lafayette, '25, Yale, '29, Farmington.  
 Buol, R. S., B.S., Univ. Mich., '21, Harvard, '23, New Britain.  
 Burdsall, E. S., Hahn, Phila., '11, New London.  
 Burgdorf, A. L., B.S., Chicago, '27, Rush, '31, Hartford.  
 Burke, F. H., B.S., Georgetown, '29, Georgetown, '31, Rockville.  
 Burke, W., L. I. Coll. Hosp., '96, Greenwich.  
 Burlingame, C. C., Hahn, Chicago, '08, Hartford.  
 Burns, G. D., Yale, '25, Derby.  
 Burns, M., M.B., B.A., Univ. Texas, '23, Univ. Texas, '27, Hartford.  
 Burr, N. A., Yale, '01, South Manchester.  
 Butler, N. G., Tufts, '24, Hartford.  
 Byrne, D. W., B.A., Wesleyan, '23, P. & S., N. Y., '27, New York City (Hartford Co.).  
 Caldwell, D. M., McGill, '19, South Manchester.  
 Calhoun, H. A., B.S., Colby, '30, Tufts, '34, Middletown.  
 Callahan, J. W., P. & S., Balt., '11, Norwich.  
 Calverley, E. J. T., Wom. Med., Pa., '08, Hartford.  
 Calvin, C. V., Harvard, '16, Bridgeport.  
 Campbell, H. B., Univ. Pa., '09, Norwich.  
 Campbell, S., Univ. Vt., '23, Meriden.  
 Canfield, N., B.S., Dartmouth, '25, Univ. Mich., '29, New Haven.  
 Cantarow, D., Tufts, '11, Hartford.  
 Cantor, P. J., B.S., N. Y. Univ., '30, Glasgow, '35, Waterbury.  
 Cantrell, R. F., Univ. Okla., '28, New London.  
 Capecelatro, A., Tufts, '19, New Haven.  
 Caplan, H., Yale, '27, Meriden.  
 Cappiello, S., Tufts, '19, Hartford.  
 Carelli, G. F., Yale, '11, New Haven.  
 Carey, T. C., B.S., Trinity, '24, Yale, '28, Hartford.  
 Carey, W. C., Columbia, '33, Meriden.  
 Carlin, C. H., Univ. Mich., '96, Torrington.  
 Carniglia, E. F., B.A., Harvard, '25, Harvard, '29, Hartford.  
 Carpenter, R. M., Loyola, '16, Stamford.  
 Carr, V. T., Hahn, Chicago, '07, Norwich.  
 Carroll, F. P., B.S., Trinity, '10, Johns Hopkins, '14, Bridgeport.  
 Carroll, J. E., B.S., Colgate, '21, Boston U., '25, Hartford.  
 Carroll, P. R., Jr., Georgetown, '29, Bridgeport.  
 Carroll, W. E., B.A., Dartmouth, '11, Dartmouth, '14, Meriden.  
 Carrozzella, J. C., B.S., Yale, '24, L. I. Coll. Hop., '28, Wallingford.  
 Carson, R. J., Toronto, U., '23, Norwich.  
 Carter, E. B., Ph.B., Yale, '07, Johns Hopkins, '11, Hartford.  
 Carter, G., B.S., B.A., M.A., Johns Hopkins, '28, Greenwich.  
 Carwin, J. L., B.A., Morehouse, '26, Meharry, '32, Stamford.  
 Casagrande, J. J., B.S., Fordham, '27, St. Louis, '32, Ansonia.  
 Case, E. P., Ph.D., Lafayette, '05, Univ. Mich. Homeo., '11, West Hartford.  
 Case-Downer, M., Boston U., '29, Hamden.  
 Caulfield, E. J., Johns Hopkins, '20, Hartford.  
 Celentano, L. E. H., B.S., Trinity, '24, Hahn, Phila., '30, New Haven.  
 Cenci, V. P., Tufts, '29, Hartford.  
 Chaffee, J. S., Ph.B., Yale, '94, Univ. Pa., '97, Sharon.  
 Chalmers, H. E., Tufts, '06, New Britain.  
 Chapnick, M. H., B.S., M.S., Trinity, Jefferson, '32, Putnam.  
 Chartier, G. M., B.A., Assumption, '29, Boston U., '33, Danielson.  
 Chase, A. A., Harvard, '01, Plainfield.  
 Chase, C. C., Univ. Vt., '24, Middletown.  
 Cheney, B. A., B.A., Yale, '88, Yale, '90, New Haven.  
 Cheney, G. P., Md. Med., '13, New London.  
 Cheney, M. L., Univ. Vt., '17, Bridgeport.  
 Chernaik, S. J., Jefferson, '16, New Britain.  
 Childs, A. E., N. Y. U., '96, Litchfield.  
 Chipman, S. S., B.A., Acadia, '24, McGill, '28, Norwalk.  
 Chohian, J. A., A.B., Holy Cross, '29, Loyola, '33, Seymour.  
 Claiborn, L. N., Washington, '27, New Haven.  
 Clark, J. B., P. & S., N. Y., '98, Greenwich.  
 Clark, M. H., Wom. Med., Pa., '33, New Haven.  
 Clarke, J. A., Bellevue, '97, Greenwich.  
 Clarke, R. deB., B.A., N. Y. U., '01, Johns Hopkins, '08, Hartford.  
 Clarke, W. C., P. & S., N. Y., '99, Cornwall Bridge.  
 Clason, F. P., B.A., Bates, '11, Harvard, '15, Hartford.  
 Cleary, H. J., Tufts, '29, Watertown.  
 Clifford, M. L., B.A., Univ. Colorado, '30; C.P.H., Johns Hopkins, Univ. Colorado, '33, Hartford.  
 Clifton, H. C., Univ. Pa., '01, Hartford.  
 Climman, M., B.A., Yale, P. & S., N. Y., '15, Hartford.  
 Climo, S., Ohio State, '29, New Haven.  
 Cloonan, J. J., P. & S., Balt., '97, Stamford.  
 Close, J. F., B.A., Colgate, '21, P. & S., N. Y., '25, Greenwich.  
 Clow, H. L., Tufts, '14, Mansfield Depot.  
 Cobb, A. E., Yale, '98, Canaan (Hartford Co.).  
 Cobey, J. F., Ph.B., Yale, '12, Yale, '16, New Haven.  
 Cochran, L. B., Univ. Pa., '93, Hartford.  
 Coffey, J. R., B.A., Yale, '03, Yale, '07, New Haven.  
 Cofrances, L. W., Jefferson, '23, New Haven.  
 Cogan, G. E., B.S., Georgetown, '21, Georgetown, '23, Hartford.  
 Cogswell, E. S., Harvard, '12, Hartford.  
 Cogswell, L. P., A.B., Univ. Maine, '27, Harvard, '33, Hartford.  
 Cohane, J. J., Yale, '98, New Haven.  
 Cohane, T. F., Yale, '97, New Haven.  
 Cohen, D. J., Yale, '32, Meriden.  
 Cohen, J., B.A., Coll. City N. Y., '94, Eclectic, N. Y., '09, Bridgeport.  
 Cohen, W., Ph.B., Yale, '20, Yale, '23, New Haven.  
 Coleburn, A. B., Ph.G., N. Y. Coll. Pharm., '84, P. & S., N. Y., '90, Norwalk (Middlesex Co.).  
 Collins, J. O., Baylor, '29, Waterbury.

- Collins, W. F., Yale, '04, New Haven.  
 Colomb, H. O., Tulane, '23, Middletown.  
 Colwell, H. S., B.S., Colgate, '10, Johns Hopkins, '14, New Haven.  
 Comfort, C. W., Jr., B.A., Yale, '07, Yale, '11, New Haven.  
 Compson, F. E. M., B.A., Geo. Wash., '19, Boston U., '20, Middletown.  
 Conkstock, E. R., B.S., Tufts, '30, Tufts, '33, New London.  
 Conklin, C. S., Fordham, '16, Bridgeport.  
 Connolly, A. J., B.S., Georgetown, '24, Georgetown, '28, New Haven.  
 Connor, J. J., B.S., Trinity, '26, Yale, '30, Hartford.  
 Connor, G. M., Villanova, '31, Boston Univ., '35, Plantsville.  
 Connors, E. R., Boston U., '31, Bridgeport.  
 Conroy, M. J., B.A., Yale, '18, Yale, '20, Meriden.  
 Conte, H. A., L. I. Coll. Hosp., '12, New Haven.  
 Converse, F. B., Eclectic, Cinn., '94, West Willington.  
 Cook, G. F., Tufts, '23, Plainville.  
 Cook, R. J., B.A., Iowa, '09, Johns Hopkins, '13, New Haven.  
 Cooley, C. M., Yale, '08, New Britain.  
 Corbett, H. J., Tufts, '29, Waterbury.  
 Corcoran, M. A., Tufts, '30, Hartford.  
 Corey, W. VanA., Geo. Wash., '33, Hamden.  
 Cornelio, F. J., B.S., Niagara, '30, Georgetown, '34, Winsted.  
 Cornwell, P. M., B.S., Trinity, Yale, '34, E. Hartford.  
 Corradino, C. L., Tufts, '29, New Haven.  
 Costanzo, J. J., Univ. Ill., '05, Stamford.  
 Costello, H. N., B.A., Yale, '06, Johns Hopkins, '10, Hartford.  
 Cotterio, T., B.S., Yale, '26, Waterbury.  
 Couch, A. R., B.A., Amherst, '01, N. Y., Homeo, '05, Hartford.  
 Couch, F. H., B.A., Harvard, '27, Yale, '30, Cromwell.  
 Couch, M. W., B.A., Smith, '18, Univ. Minn., '27, Cromwell.  
 Cowan, I., Wom. Med., N. Y., '92, Waterbury.  
 Cox, R. B., McGill, '02, Collinsville.  
 Coyle, A. E. M., Wom. Med., Pa., '12, Windsor Locks (Fairfield Co.).  
 Coyle, B. J., St. Bonaventure, '11, Georgetown, '18, Windsor Locks.  
 Cragin, D. B., Harvard, '02, Hartford.  
 Craighill, M. D., B.A., B.S., Wisconsin, '20, Johns Hopkins, '24, Greenwich.  
 Craig, G. M., B.S., Wesleyan, '16, Harvard, '20, Middletown.  
 Crane, R. W., Yale, '05, Stamford.  
 Crawley, G. A., Temple, '28, West Hartford.  
 Creadick, A. N., B.A., Univ. Pa., Univ. Pa., '08, New Haven.  
 Creaturo, N. E., B.A., Columbia, '28, Boston U., '31, Bridgeport.  
 Crook, J. B., N. Y. Homeo, '13, East Haddam.  
 Crosby, E. H., B.A., Amherst, '24, Yale, '28, Hartford.  
 Culotta, C. S., B.S., Yale, 'Yale, '28, New Haven.  
 Cunningham, J. M., B.S., Univ. Texas, '23, Univ. Texas, '26, Hartford.  
 Cunningham, R. D. M., B.S., Tufts, '26, Yale, '30, Stamford.  
 Curley, W. H., Cornell, '08, Bridgeport.  
 Curran, E. R., Jefferson, '24, Union City.  
 Curran, H. J., Tufts, '24, Thomaston.  
 Curran, P. J., P. & S., N. Y., '01, Bridgeport.  
 Curtiss, M. E., Wom. Med., Pa., '21, Bristol.  
 Cushing, H., B.A., Yale, '91, Harvard, '95, New Haven.  
 Cushman, L. A., B.S., Wash. & Lee, '20, Harvard, '24, West Hartford.  
 Dallas, M., Boston U., '22, New Haven.  
 Daly, C. W., P. & S., Balt., '10, Hartford.  
 Daly, W. P., B.S., Georgetown, '15, Georgetown, '17, Hartford.  
 D'Amico, M., B.S., Yale, '28, Yale, '31, New Haven.  
 Danaher, T. J., B.S., Yale, '25, Yale, '28, Torrington.  
 D'Andrea, F. H., B.S., Yale, '26, Yale, '29, Stamford.  
 Darrow, D. C., B.S., Cornell, '16, Johns Hopkins, '20, New Haven.  
 Darrow, J. E., Tufts, '28, New Britain.  
 Dart, F. H., P. & S., N. Y., '84, Niantic.  
 Davenport, A. K. P., Med. Coll., S. C., '03, Syracuse U., '17, Hartford.  
 Davis, C. C., Yale, '07, Essex.  
 Davis, G. B., B.S., Dartmouth, '21, Univ. Vt., '24, Guilford.  
 Davis, J. E., B.A., Roanoke Coll., '15, Johns Hopkins, '19, Hartford.  
 Dawson, L. M., Queen's, '09, Hartford.  
 Day, F. L., B.A., Bates, '00, Bellevue, '93, Bridgeport.  
 Dayton, A. B., Ph.B., Yale, '11, Johns Hopkins, '15, New Haven.  
 Dean, F. F., B.A., Cornell, '24, Cornell, '28, Putnam.  
 Dean, S. R., U. of Mich., '34, Newtown.  
 DeBonis, D. A., B.A., Victor Immanuel College, Naples, '84, Univ. Naples, '90, Hartford.  
 D'Elia, A. J., B.A., Dartmouth, '29, Tufts, '33, Norwich.  
 Delohery, C. L., Ph.B., Villanova, Temple, '26, Danbury.  
 DeLuca, H. R., Geo. Wash., '16, Bridgeport.  
 DelVecchio, L. F., Georgetown, '31, Bridgeport.  
 Deming, C. D., B.A., Yale, '07, Johns Hopkins, '10, Hartford.  
 Deming, C. K., P. & S., N. Y., '17, New Haven.  
 Deming, C. L., B.A., Bowdoin, '10, Yale, '15, New Haven.  
 Deming, D. B., P. & S., N. Y., '01, Waterbury.  
 Deming, E. A., Ph.B., Yale, '04, Johns Hopkins, '08, Hartford.  
 Denison, C. N., L. I. Coll. Hosp., '93, Dayville.  
 Denne, T. H., Univ. Vt., '05, West Hartford.  
 Dennehy, W. J., B.A., Yale, '15, Yale, '18, New Haven.  
 DePasquale, F. L., Univ. Pa., '26, Hartford.  
 DePasquale, J. A., Catholic Univ., '32, Univ. Penn., '36, Hartford.  
 DeRosa, S. F., Jefferson, '24, Meriden.  
 Derwin, J. J., B.S., St. Bonaventure, Georgetown, '30, Winsted.  
 Desmond, W. F., B.A., Univ. Mich., '21, Yale, '25, Newtown.  
 D'Esopo, J. N., B.S., Trinity, '26, McGill, '31, West Haven.  
 DeVito, M. J., Vanderbilt, '28, Hartford.  
 Devitt, E. K., Md. Med., '07, Old Lyme.  
 DeWitt, E. N., Univ. Pa., '17, Bridgeport.  
 Diamond, E. H., B.S., Yale, '28, Univ. Breslau, '32, Springdale.  
 Dichter, C. L., Md. Med., '05, Stamford.  
 Dichter, I. S., B.A., Columbia, '27, Jefferson, '31, Stamford.  
 Dickinson, F. McL., Ph.B., Yale, '00, P. & S., N. Y., '05, Rockville.  
 Diefendorf, A. R., B.A., Yale, '96, New Haven.  
 DiFrancesco, L. P., Tufts, '31, Stamford.  
 Dignam, B. S., B.A., Trinity, '30, Yale, '35, Thompsonville.  
 Dignam, E. A., Md. Coll. Va., '28, Rockville (Hartford Co.).  
 Dillon, J. H., Yale, '04, Waterbury.  
 Dinsmore, W. W., B.S., Univ. Ala. Poly. Inst., Johns Hopkins, '07, West Hartford.  
 Dion, A. J., Tufts, '28, Hartford.  
 Dixon, H. C., B.A., Bowdoin, '14, Bowdoin, '17, Norwich.  
 Dobbs, W. G. H., A.B., Rochester, '31, Rochester, '34, New Haven.  
 Donnelly, S. P., Georgetown, '24, New Britain.  
 Donner, S., B.A., Yale, '18, Cornell, '33, Hartford.  
 Donohue, B. F., Yale, '03, Bristol.  
 Donohue, James J., P. & S., Balt., '96, Norwich.  
 Donovan, W. F., B.S., Conn. S., '26, Boston U., '31, Hartford.  
 Dorion, R. H., Vermont, '32, Stamford.  
 Douglass, E. L., L. I. Coll. Hosp., '16, Groton.  
 Dowd, M. J., Balt. Med., '01, Thompsonville.  
 Dower, W. A., Tufts, '33, Windsor.  
 Downing, F., Balt. Med., '08, Norwich (Windham Co.).  
 Drake, P. G., B.S., Dartmouth, Harvard, '03, West Hartford.  
 Dray, E. J., Jefferson, '09, New Britain.  
 Dreher, A. C., Yale, '23, Waterbury.  
 Driscoll, J. J., Univ. Vt., '25, Danbury.  
 Driscoll, W. T., P. & S., Balt., '12, Norwich.  
 Dryfus, M. L., Yale, '12, New York City (New Haven Co.).  
 Dudac, T. W., B.S.M., Georgetown, '31, Georgetown, '33, Southington.  
 Duffy, L. T., B.S., Conn. St., '30, Tufts, '34, Bridgeport.  
 Duffy, V. P., Univ. Md., '17, Naugatuck.  
 Duffy, W. C., B.A., Wake Forest, '10, Johns Hopkins, '14, New Haven.  
 Dunham, E. C., B.A., Bryn Mawr, Johns Hopkins, '18, Washington, D. C. (New Haven Co.).  
 Dunne, E. P., Holy Cross, '12, Univ. Maryland, '18, Unionville.  
 Dunn, F. M., Balt. Med., '08, New London.  
 Dunn, G. W., Balt. Med., '09, New Britain.  
 Dunne, R. E., B.A., Catholic Univ., Harvard, '19, Hartford.  
 Dwyer, P. J., B.A., Fordham, '04, N. Y. U., '97, Waterbury.  
 Dwyer, W., B.S., Trinity, '09, Johns Hopkins, '13, Hartford.  
 Dye, J. S., B.A., Vanderbilt, '00, P. & S., N. Y., '15, Waterbury.  
 Dyer, C. E., Tufts, '28, New London.  
 Earle, B. B., B.A., Baylor, '25, Rush, '30, Glastonbury.  
 Eckert, G. R., Tufts, '33, Danbury.  
 Edlin, C., Tufts, '25, Waterbury.  
 Egan, J. J., Univ. Md., '07, Waterbury.  
 Egee, J. B., B.S., Hahne, '30, Hahne, '34, Sandy Hook.  
 Eimas, A., Tufts, '30, Bridgeport.  
 Elliott, K. G., Tufts, '26, Hartford.  
 Eliot, M. M., Johns Hopkins, '18, Washington, D. C. (New Haven Co.).  
 Elliott, G. A., Toronto U., '24, Middletown.  
 Elliott, J. R., B.A., Holy Cross, '28, Boston U., '32, Canaan.  
 Ellis, F. D., Jr., B.A., Univ. Pa., '15, Univ. Pa., '18, Farmington.  
 Ellison, F. S., Hamilton, '30, Yale, '34, Hartford.  
 Ellrich, D. L., B.A., Harvard, '24, Jefferson, '28, Westport.  
 Elmer, E. O., P. & S., Balt., '94, Hartford.  
 Ely, J. G., B.S., Wesleyan, '17, Harvard, '23, Lyme.  
 Ematrudo, F. R., Eclectic, Cinn., '21, Hamden.



- Emery, E. VanN., Toronto U., '11, St. Louis, Mo. (New Haven Co.).  
 Emmett, F. A., Yale, '02, Hartford.  
 Enander, F. C., Tufts, '22, New Britain.  
 Enders, T. B., B.A., Yale, '88, P. & S., N. Y., '91, Mystic (Hartford Co.).  
 Engelke, C., P. & S., N. Y., '02, Waterbury.  
 English, C. F., B.S., St. Louis U., '12, Winsted.  
 Errico, L., B.A., Yale, '18, Yale, '21, New Haven.  
 Evans, T. S., B.A., Yale, '17; B.S., Columbia, '19, P. & S., N. Y., '21, New Haven.  
 Evarts, J., B.A., Vassar, '24, P. & S., N. Y., '29, Cornwall Bridge.  
 Fabricant, S. E., Jefferson, '19, Waterbury.  
 Fagan, F. X., Ph.B., Brown, '29; Cornell, '33, Hartford.  
 Fancher, H. W., B.S., St. Johns, '21, Univ. Md., '25, Thompsonville.  
 Farland, V. L., B.A., Joliet, '20, Montreal U., '25, Hartford.  
 Farrell, J. E., Univ. & Bellevue, '03, Waterbury.  
 Fauver, E., P. & S., N. Y., '09, Middletown.  
 Fawcett, G. G., Cornell, '15, South Norwalk.  
 Fay, W. J., B.A., '10, Harvard, '14, Hartford.  
 Fear, R. D., M.A., Hamilton, Coll. Johns Hopkins, '17, Stamford.  
 Fekety, S. H., Tufts, '30, Middletown.  
 Felt, P. R., B.A., Dartmouth, Dartmouth, '10, Middletown.  
 Felty, A. R., B.A., Yale, '16, Johns Hopkins, '20, Hartford.  
 Fenimore, B. B., Hahn, Phila., '04, Mansfield Depot.  
 Fenney, P. W., B.S., N. Y. U., '27, Tufts, '31, New Haven.  
 Ferguson, H. K., B.S., Conn. Coll., '25, N. Y. U. & Bellevue, '32, New London.  
 Ferguson, J. A., M.S., W. Ont., '30, W. Ontario, '25, Burlington, Vt. (New Haven Co.).  
 Ferguson, R. C., B.A., Yale, '18, Yale, '20, Rockville.  
 Ferguson, R. J., Hahn, Phila., '89, New Haven.  
 Ferris, H. B., B.A., Yale, '87, Yale, '90, Clinton & Florida (New Haven Co.).  
 Filson, R. M., B.A., Queen's, '13, Queen's, 15, Garden City, L. I., N. Y. (Hartford Co.).  
 Fincke, C. L., B.A., Harvard, '24, Harvard, '28, Stamford.  
 Finoorak, F. G., B.S., Georgetown, '32, Stratford.  
 Fine, B., B.S., Univ. Pa., '28, Jefferson, '32, Stamford.  
 Fine, J., Univ. Pa., '31, Stamford.  
 Finkelstein, W., Harvard, '34, Waterbury.  
 Finklestone, B. B., P. & S., Balt., '10, Bridgeport.  
 Finley, G. C., Tufts, '24, Hartford.  
 Finn, A. J., B.A., Bowdoin, '17, Bowdoin, '21, Waterbury.  
 Finn, E. J., Yale, '10, Shelton.  
 Fischer, W. J. H., Yale, '11, Milford.  
 Fisher, J. W., Wom. Med., Pa., '93, Middletown.  
 Fiske, M., B.A., Vassar, Boston U., '27, Stamford.  
 Fiskio, P. W., B.S., Yale, '24, Yale, '27, New Haven.  
 Fitzgerald, C. J., Univ. Vt., '98, New Haven.  
 Fitzpatrick, E. E., Ph.G., R. I. Coll. Phar., '07, Univ. Md., '15, Waterbury.  
 FitzSimons, E. F., Tufts, '24, New Haven.  
 Flaherty, C. V., Yale, '10, Hartford.  
 Flaherty, J. E., Georgetown, '08, Rockville.  
 Flanagan, G. M., P. & S., Boston, '11, New Britain.  
 Flanagan, W. F., Fordham, '17, New Britain.  
 Fleck, H. W., Jefferson, '96, Bridgeport.  
 Flynn, C. T., Yale, '11, New Haven.  
 Flynn, D. A., Yale, '05, New Haven.  
 Flynn, H. A., B.A., Yale, '23, Yale, '27, New Haven.  
 Flynn, W. H., Univ. Md., '16, Bristol.  
 Foley, F. X., A.B., Boston U., '34, Bridgeport.  
 Foote, C. J., B.A., Yale, '83; M.A., Yale, '90, Harvard, '87, New Haven.  
 Foote, F. M., D.Ph., Yale, '35, Yale, '33, West Hartford.  
 Formichella, G., Univ. Naples, '98, Bridgeport.  
 Foster, E. W., B.A., Kansas, '16, Harvard, '24, Meriden.  
 Foster, J. H., B.S., Colby, '03, Univ. Pa., '17, Waterbury.  
 Foster, L. C., B.A., Univ. Kansas, '19, Harvard, '23, New Haven.  
 Foster, W. W., Harvard, '82, Washington, D. C. (Windham Co.).  
 Fox, E. G., U. City N. Y., '83, Wethersfield.  
 Fox, J. C., Jr., B.A., Williams, '16, Johns Hopkins, '20, New Haven.  
 Frank, H. S., B.A., Wesleyan, '21, P. & S., N. Y., '24, Middletown.  
 Freedman, B. P., Ph.B., Yale, '17, Yale, '20, New Haven.  
 Freeman, D., Ph.B., Yale, '20, Yale, '24, New Haven.  
 Freeman, A. C., Univ. Vt., '13, Norwich.  
 Friedman, N. H., B.S., Tufts, Tufts, '33, Stratford.  
 Freiheit, J. M., B.S., Yale, '24, Yale, '27, Waterbury.  
 Friedberg, S., B.S., Coll. City N. Y., '19, L. I. Coll. Hosp., '28, Stamford.  
 Friedman, I., Geo. Wash., '31, Colchester.  
 Friend, A. E., Queen's, '22, South Manchester.  
 Friery, C. M., B.A., Harvard, '25, Boston U., '29, Hartford.  
 Frost, L. H., Univ. Vt., '13, Plainville.  
 Fruin, J. W., L. I. Coll. Hosp., '08, Waterbury.  
 Fry, C. C., Northwestern, '24, New Haven.  
 Fulstow, N., Tufts, '20, Fairfield.  
 Furniss, H. W., Howard, '91, Hartford.  
 Gaberman, D., P. & S., N. Y., '20, Hartford.  
 Gade, C. J., Yale, '10, Bridgeport.  
 Gaetz, T. H., McGill, '24, Shelton.  
 Gaffney, J. J., Loyola, '30, Danbury.  
 Galinsky, D., Trinity, '32, Tufts, '36, Hartford.  
 Gallivan, J. N., B.A., Tufts, '32, Tufts, '35, East Hartford.  
 Gallo, F., B.S., St. Bonaventure, '30, Jefferson, '34, Winsted.  
 Gancher, J., L. I. Coll. Hosp., '06, Waterbury.  
 Gandy, R. A., B.S., Univ. Va., Univ. Va., '27, Stamford.  
 Gandy, R. R., Univ. Pa., '99, Stamford.  
 Ganey, J. M., P. & S., N. Y., '04, New London.  
 Garbelnick, D. A., Boston U., '17, Bridgeport.  
 Garcia, A. G., Univ. Vt., '21, Moosup (New Haven Co.).  
 Garcin, C. R., C.M., McGill, '25, Danielson.  
 Gardner, C. W., Univ. Md., '01, Bridgeport.  
 Gardner, N. H., Tufts, '34, East Hampton.  
 Garland, R. B., P. & S., Balt., '13, Hartford.  
 Garlick, G. B., Yale, '12, Bridgeport.  
 Garston, L. E., St. Louis U., '30, Torrington.  
 Gates, A. B., L. I. Coll. Hosp., '12, Greenwich.  
 Gaylord, C. W., B.A., Yale, '11, Yale, '15, Branford.  
 Geck, O. F., Lushing Maximilions Univ., '25, Pomfret Centre (Fairfield Co.).  
 Geeter, I. S., B.S., Trinity, Jefferson, '29, New Britain.  
 Geib, H. A., Univ. & Bellevue, '14, Milford.  
 Genovese, F. T., B.A., N. Y. U., Univ. & Bellevue, '29, Danbury.  
 Genovese, S., Cornell, '11, Ridgefield.  
 Gentile, A. L., Boston U., '29, New Haven.  
 George, J. J., Queen's, '27, Sandy Hook.  
 Geraci, L. A., Ph.B., Yale, '13, P. & S., N. Y., '17, New Haven.  
 German, W. J., Harvard, '26, New Haven.  
 Gettings, J. A., Jefferson, '16, New Haven.  
 Giamarino, H. J., Univ. Md., '06, New Haven.  
 Gianotti, C. C., Albany Med., '18, New Haven.  
 Gibson, C. B., Atlanta Med., '14, Meriden.  
 Gibson, D. F., Ph.B., Yale, Yale, '27, Danbury.  
 Gilday, J. L., Eclectic, Cinn., '13, Bridgeport.  
 Glidea, M. A., B.S., St. Bonaventure, '22, Buffalo U., '24, Bridgeport.  
 Gildersleeve, C. C., Yale, '96, Norwich.  
 Gildersleeve, G. H., Ph.B., Brown, '19, Yale, '23, Norwich.  
 Giles, N. W., Univ. Vt., '21, Stamford.  
 Gill, M. H., Yale, '96, Hartford.  
 Gillette, C. W., Jefferson, '95, Westport.  
 Gills, W. L., B.A., Randolph Macon, '05, Johns Hopkins, '12, Hartford.  
 Gilman, R. L., B.A., Harvard, '25, Harvard, '29, Storrs (Windham Co.).  
 Gilmore, J. L., Yale, '04, West Haven.  
 Gilmour, O. W., B.A., Queen's, '29, Mansfield Depot.  
 Giobbe, M. E., Ph.B., Boston Col., '25, Tufts, '29, Torrington.  
 Giorgio, N. A., B.S., Dartmouth, '22, L. I. Coll. Hosp., '25, Hartford.  
 Gipstein, E., B.A., Harvard, '27, Jefferson, '31, New London.  
 Girouard, J. A., Balt. Med., '99, Willimantic.  
 Gissler, N. E., Yale, '28, Middletown.  
 Giuliano, L. A., Tufts, '32, S. Norwalk.  
 Giuliano, S., B.S., Yale, '26, Tufts, '30, Hartford.  
 Givens, J. M., B.A., Queen's, '18, Queen's, '23, Stafford Springs.  
 Glass, G. C., B.S., Trinity, '27, Yale, '31, Hartford.  
 Glaubman, H. M., B.A., Trinity, '23, Yale, '27, Hartford.  
 Glazer, M., Ph.B., Yale, '18, Tulane, '22, New Haven.  
 Glazier, J. R., Harvard, '22, Hartford.  
 Goddard, H. B., B.A., Bates, '20, Harvard, '24, East Hartford.  
 Godfrey, E. J., Georgetown, '15, Waterbury.  
 Godfrey, W. T., Cornell, '07, Stamford.  
 Goff, C. W., B.S., Univ. Ill., '22, Univ. Ill., '24, Hartford.  
 Gold, J. D., Ph.B., Yale, '88, P. & S., N. Y., '91, Bridgeport.  
 Gold, L. H., N. Y., Homeo, '32, Hartford.  
 Goldberg, I. S., B.A., Cath. U., '28, Creighton, '33, Torrington.  
 Goldberg, S. J., Yale, '07, New Haven.

- Goldenberg, J. J., Dalhousie, '26, Hartford.  
 Goldman, G., Yale, '10, New Haven.  
 Goldstein, M., Yale, '24, New Haven.  
 Goldstein, R. M., B.S., Harvard, '21, Johns Hopkins, '30, New Haven.  
 Goldys, F. M., B.A., Harvard, Tufts, '26, Danbury.  
 Good, W. M., Yale, '09, Waterbury.  
 Goodell, R. A., Ph.B., Brown, '24, Harvard, '28, Hartford.  
 Goodenough, E. W., B.A., Yale, '87, Yale, '93, Waterbury.  
 Goodman, L. S., M.A., Oregon, '32, Oregon, '32, New Haven.  
 Goodrich, C. A., B.S., Mass. Agr. Coll., '93, P. & S., N. Y., '96, Hartford.  
 Gordon, E. F., Johns Hopkins, '30, New Haven.  
 Gordon, R. K., P. & S., N. Y., '19, New Haven.  
 Gordon, W. F., L. I. Coll. Hosp., '96, Danbury.  
 Gore, M. A., B.A., Geo. Wash., '14, Univ. Md., '18, Bristol.  
 Gorham, G. V., A.B., M.A., U. of Mich., '30, Norwalk.  
 Gosselin, G. A., B.A., Laval, '11, Univ. Vt., '15, Hartford.  
 Gould, M. M., Tufts, '31, Hartford.  
 Granniss, I., Yale, '96, Old Saybrook.  
 Grant, A. N., Meharry, '16, Stamford.  
 Grant, A. S., B.S., Wesleyan, Univ. & Bellevue, '08, New Britain.  
 Grau, L. C., Dartmouth, '12, Hartford.  
 Graves, F. G., Yale, '92, Bethlehem (New Haven Co.)  
 Graves, J. C., Jr., B.A., Amherst, '99, Harvard, '04, Hartford.  
 Gray, H., Jefferson, '19, Norwich.  
 Gray, H. J., B.S., St. Louis, St. Louis U., '21, West Hartford.  
 Gray, W. H., P. & S., N. Y., '89, Mystic.  
 Green, J. H., Univ. & Bellevue, '13, Waterbury.  
 Green, W. F., Harvard, '28, Harvard, '32, Hartford.  
 Greenberg, A., B.S., N. Y. U., L. I. Coll. Hosp., '32, Old Saybrook.  
 Greenhouse, B., Ph.B., Yale, '18, Yale, '21, New Haven.  
 Greenspun, D. S., Ph.B., Yale, '21, Yale, '25, Bridgeport.  
 Greenwood, J. C., B.A., M.A., Yale, P. & S., N. Y., '04, Greenwich (New Haven Co.).  
 Griffin, D. P., Jefferson, '14, Bridgeport.  
 Griggs, J. B., Jr., B.A., Yale, '23, Yale, '26, West Hartford.  
 Grillo, J. A., Geo. Wash., '35, Hamden.  
 Griswold, A. H., B.A., Harvard, '02, Johns Hopkins, '06, Hartford.  
 Griswold, A. S., Yale, '21, Bridgeport.  
 Griswold, C., Yale, '24, Bridgeport.  
 Griswold, E. M., Yale, '32, Glastonbury.  
 Griswold, M., B.A., Yale, '25, Black Hall.  
 Griswold, M. H., Univ. Vt., '13, Hartford.  
 Gioark, J. A., B.A., Yale, '21, Yale, '24, New Haven.  
 Gioark, O. J., Med. Chi., Phila., '16, Bridgeport.  
 Godin, H. W., Yale, '17, New Haven.  
 Grosvenor, F. L., Buffalo U., '00, Hartford.  
 Grout, S. P., Univ. Vt., '04, Newtown.  
 Grower, J. H., B.S., Univ. Neb., '24, Univ. Neb., '25, Middletown.  
 Gulino, A. J., Tufts, '31, Plainfield.  
 Gura, G. M., B.S., Loyola, '30, Loyola, '31, Southington.  
 Haberlin, C. E., B.Sc., W. Va., Med. Coll. Va., '24, Stratford.  
 Hackett, J. F., B.A., Yale, '03, McGill, '06, Waterbury.  
 Hale, F., B.S., Amherst, '05, P. & S., N. Y., '09, Bridgeport.  
 Hale, V. A., Univ. Texas, '22, Norwich.  
 Haliday, E. G., Queen's, '27, Stonington.  
 Hall, L., B.A., Harvard, '20, Harvard, '24, Hartford.  
 Hall, M. I., Edinburg, '34, Bristol.  
 Hall, W. E., B.A., Yale, '22, Yale, '25, Meriden.  
 Hamilton, J. S. M., McGill, '26, Stamford.  
 Hanchett, H. B., Jefferson, '05, Torrington.  
 Hankin, M. A., B.S., Yale, '26, L. I. Coll., '33, New Haven.  
 Hankins, M. M., B.A., Salem, '17, Univ. Pa., '25, Mansfield Depot.  
 Hanley, J. P., Cornell, '06, Stafford Springs.  
 Hanrahan, W. R., P. & S., Balt., '05, Bristol.  
 Hansell, H. R., B.A., Univ. Pa., '23, Univ. Pa., '27, Sharon.  
 Harper, P., A.B., Dartmouth, '26, Yale, '31, Bridgeport.  
 Harrington, A. E., Georgetown, '33, Milford.  
 Harrington, A. T., B.A., Yale, '94, Harvard, '10, Hartford.  
 Harrington, J. L., Jefferson, '03, New London.  
 Harris, B. R., Ph.B., Yale, '19, Yale, '22, New Haven.  
 Harris, J. S., Yale, '32, New Haven.  
 Harris, L. D., Tufts, '34, Hartford.  
 Harrison, E. R., Yale, '26, New Haven.  
 Harrison, F. M., A.B., Holy Cross, '17, Jefferson, '22, Stamford.  
 Harrison, J. F., Jefferson, '03, Stamford.  
 Harshbarger, I. L., Univ. Va., '22, Bridgeport.  
 Hart, J. C., B.S., Yale, '27, Yale, '30, New Haven.  
 Hart, C. J., Hahne, Phila., '03, New Britain.  
 Hartshorn, W. E., Ph.B., Colo. Coll., '95, Univ. Minn., '98, New Haven.  
 Harvey, C. C., B.S., Wesleyan, '12, Cornell, '16, Middletown.  
 Harvey, D. F., Yale, '33, Hartford.  
 Harvey, J. LeR., Louisville U., '14, Waterbury.  
 Harvey, S. C., Ph.B., Yale, '07, Yale, '11, New Haven.  
 Hastings, L. P., B.Sc., Mass. Agr. Coll., '19, Univ. Vt., '23, Hartford.  
 Hatfield, M. E., B.A., Univ. Wis., '24, Univ. Wis., '27, Wisconsin (Hartford Co.).  
 Hathaway, J. S., Harvard, '28, New Haven.  
 Hatheway, C. M., Univ. & Bellevue, '03, Hartford.  
 Havey, L. A., Univ. Vt., '10, Bridgeport.  
 Haviland, W. C., Balt. Med., '04, Middletown.  
 Hawley, G. W., Ph.B., Yale, '96, Cornell, '99, Westport.  
 Hawthorne, J., Tulane, '20, Greenwich.  
 Haylett, H. B., Univ. Vt., '07, East Hartford.  
 Hazen, D. R., A.B., Amherst, '29, Harvard, '33, Hartford.  
 Hazen, R., B.A., Univ. Vt., '96, Univ. Vt., '98, Thomaston.  
 Heady, C. K., Jefferson, '13, Milford.  
 Heidger, L. C., Univ. Vt., '21, Stratford.  
 Hendel, I., Jefferson, '17, New London.  
 Henderson, A. C., B.S., Amherst, '99, P. & S., N. Y., '03, Stamford.  
 Henderson, J., B.S., Amherst, '26, P. & S., N. Y., '31, Stamford.  
 Hendricks, A. L., Yale, '07, New Haven.  
 Henkle, E. A., Cornell, '99, New London.  
 Henkle, R. T., B.A., Cornell, '27, Cornell, '31, New London.  
 Hennessey, E. H. J., Univ. Md., '12, Stratford.  
 Hennessey, J. G., Tufts, '34, Bridgeport.  
 Hennessey, J. J., B.A., Dartmouth, '23, P. & S., N. Y., '26, Hartford (New Haven Co.).  
 Henze, C. W., Yale, '00, New Haven.  
 Hepburn, T. N., B.A., Randolph Macon Coll., Va., '00; M.A., '01, Johns Hopkins, '05, Hartford.  
 Herman, D. W., B.A., Columbia, '21, P. & S., N. Y., '24, Winsted.  
 Herr, E. A., B.A., Dartmouth, '06, Univ. Vt., '09, Waterbury.  
 Herrick, F. L., B.S., Univ. Vt., Univ. Vt., '31, Lakeville.  
 Herrmann, A. E., B.A., Univ. Neb., '18, Harvard, '23, Waterbury.  
 Herrmann, J. B., Ph.B., Yale, '17, Yale, '21, New Haven.  
 Hertzberg, G. R., Dartmouth, '99, Stamford.  
 Hertzberg, R. F., B.A., Dartmouth, '23, Harvard, '26, Stamford.  
 Hess, O. W., Buffalo U., '31, New Haven.  
 Hessler, H. P., Yale, '03, New Haven.  
 Hetzel, J. L., Yale, '26, Waterbury.  
 Hewes, C. T., Univ. Vt., '31, Groton.  
 Hewitt, A. F., Syracuse, '13, Stamford.  
 Heyer, H. H., U. City N. Y., '87, New London.  
 Heyman, J., Med. Coll. Va., '17, Hartford.  
 Higgins, E. C., Tufts, '25, South Manchester.  
 Higgins, G. S., Yale, '01, South Coventry.  
 Higgins, H. E., U. City N. Y., '96, Norwich.  
 Higgins, H. W., B.A., Middlebury, '27, Tufts, '32, Norwich.  
 Higgins, J. J., B.A., Georgetown, '24, Georgetown, '28, New Haven.  
 Higgins, W. L., U. City N. Y., '90, South Coventry.  
 Hill, E. R., Jefferson, '24, Mystic.  
 Hill, E. S., McGill, '23, Torrington.  
 Hill, F. J., B.S., Penn. State, Jefferson, '30, Waterbury.  
 Hill, W. E., Bowdoin, '21, Naugatuck.  
 Hill, W. M., Univ. Va., '97, Noank.  
 Hillman, M. M., Ph.B., Yale, P. & S., N. Y., '19, New Haven.  
 Hills, L. H., Wom. Med., Pa., '96, Willimantic.  
 Hippolitus, J. D., B.S., Yale, '21, Yale, '25, New Haven.  
 Hippolitus, P. D., Yale, '12, Bridgeport.  
 Hirata, I., Yale, '12, New Haven.  
 Hirschfeld, O. M., B.S. Conn. State, '27, Tufts, '31, Hartford.  
 Hirschberg, M. S., Tufts, '27, Hartford.  
 Hitchcock, F. St. C., N. Y. Homeo, '07, Greenwich.  
 Hodgson, T. C., M.B., Toronto U., '94, Trinity Med., '94, Berlin.  
 Hoffman, C. C., Buffalo U., '16, Hartford.  
 Hoffman, W. E. Hahn, Chicago, '05, Torrington.  
 Hogan, W. L., B.A., Holy Cross, '14; M.A., Holy Cross, '24, Univ. Vt., '18, Hartford.  
 Holley, E., Albany Med., '96, Middletown.  
 Holt, K. R., B.S., Dartmouth, '23, Yale, '26, Hartford.  
 Holtz, R. S., Univ. Vt., '28, Hartford.  
 Hooper, G. H., Boston U., '29, Bridgeport.  
 Hopper, E. B., B.A., N. Y. U., '25, Yale, '29, Stamford.



- Horn, B., B.S., Coll. City N. Y., '25, Univ. & Bellevue, '29, Bridgeport.  
 Horn, M. I., N. Y. Homeo., '15, Bridgeport.  
 Horning, B. G., M.S., Univ. Ore., '22; D.P.H., Johns Hopkins, '32, Harvard, '28, Hartford.  
 Horsefield, T. E., Univ. Vt., '29, Moodus.  
 Hosking, F. S., McGill, '30, Darien.  
 Hough, P. T., B.S., Trinity, '26, McGill, '32, Hartford.  
 Houle, R. T., B.S., Villanova, '28, Georgetown, '32, East Hartford.  
 Howard, A. J., B.A., Yale, '17, Yale, '20, New Haven.  
 Howard, A. W., U. City N. Y., '90, Wethersfield.  
 Howard, H. A., Tufts, '29, Wethersfield.  
 Howard, J. H., Georgetown, '18, Bridgeport.  
 Howard, M. E., B.A., Columbia, '26, Johns Hopkins, '31, New Haven.  
 Howe, G. E., B.S., Mass. Agr. Coll., '13, Harvard, '18, Hartford.  
 Howes, E. L., B.S., Yale, '25; Sc.D., Colgate, Yale, '28, Washington D. C. (New Haven Co.).  
 Howland, E. J., Univ. Vt., '11, Colchester.  
 Howlett, K. S., U. S. Naval Acad., '25, Vanderbilt, '31, Shelton.  
 Hughson, D. T., B.A., Yale, '23, Yale, '27, Madison.  
 Hurlburt, E. G., Vt., '35, Bridgeport.  
 Hunkemier, E., N. Y. U., '33, South Norwalk.  
 Huntington, F. S., B.A., Colgate, '17, Harvard, '24, Darien.  
 Hurwitz, G. H., B.A., Harvard, '29, Univ. Md., '33, Hartford.  
 Hurwitz, H. M., Yale, '12, Hartford.  
 Hutchison, J. E., B.A., Ohio State U., '09, Johns Hopkins, '14, Hartford.  
 Hyde, C. E., Yale, '10, Bridgeport.  
 Hyde, C. J., Univ. & Bellevue, '03, Milford.  
 Hymovich, L., B.S., N. Y. U., '25, Jefferson, '29, U. Toronto, '32 Stamford.  
 Hynes, F. H., Tufts, '13, New Haven.  
 Hynes, T. V., Yale, '00, New Haven.  
 Ignace, S. J., A.B., M.A., Cath. Univ., '26, Georgetown, '30, New Milford.  
 Ingraham, A. E., Tufts, '00, Hartford.  
 Irving, J. G., A.B., U. Toronto, '29, U. Toronto, '32, Hartford.  
 Itzkowitz, H., B.S., Tufts, '30, Tufts, '34, New London.  
 Jack, G., Boston U. (Homeo.), '07, New Haven.  
 Jack, J. L., B.S., R. I. State, '15, Yale, '23, New Haven.  
 Jackson, A. H., B.A., Princeton, '16, Yale, '24, Washington.  
 Jackson, A. J., P. & S., N. Y., '15, Waterbury.  
 Jackson, E. B., Johns Hopkins, '21, New Haven.  
 Jackson, E. J., Tufts, '19, Waterbury.  
 James, A. B., McGill, '27, Bridgeport.  
 James, G. R., Yale, '10, New Haven.  
 James, L. P., B.A., Trinity, '24, Yale, '27, Hartford.  
 Jameson, R. H., B.A., Wellesley, '87, Wom. Med., Pa., '91, Niantic.  
 Jarvis, H. G., B.A., Yale, '06, Johns Hopkins, '10, Hartford.  
 Jenkins, C. A., Balt. Med., '11, Willimantic.  
 Jenkins, R. H., Med. Coll. Va., '16, New Haven.  
 Johnson, A. A., P. & S., N. Y., '90, Waterbury.  
 Johnson, C. E., B.A., Stan., '22, Harvard, '26, New Haven.  
 Johnson, E. M., Yale, '14, New Haven.  
 Johnson, H. A., Univ. Vt., '25, Naugatuck.  
 Johnston, E. H., Univ. Md., '00, Waterbury.  
 Jones, F. S., Yale, '28, Hartford.  
 Joslin, G. H., Univ. Vt., '87, Mt. Carmel.  
 Joyce, W. M., Jefferson, '17, Middletown.  
 Jordan, P. H., Univ. Iowa, '29, Ann Arbor, Mich. (Tolland Co.).  
 Kahn, E., Munich, '11, New Haven.  
 Kalett, J., Jefferson, '28, New Britain.  
 Kalin, J. I., B.A., Clark, '20, Harvard, '24, Hartford.  
 Kalman, E., Komensky, Czechoslovakia, '23, Bridgeport.  
 Kane, J. H., Md. Med., '04, Thomaston.  
 Kaplowe, J. L., N. Y. Homeo., '30, New Haven.  
 Kaprielian, H. K., Univ. Va., '08, Old Greenwich.  
 Kardys, J. A., Geo. Wash., '30, Hartford.  
 Karotkin, R. H., B.S., N. Y. U., '29, Univ. & Bellevue, '32, Hartford.  
 Kaschmann, J., Munich U., '22, Hartford.  
 Kaschub, R. W., Tufts, '35, Meriden.  
 Katz, D., Univ. Vt., '22, Univ. Vt., '25, Hartford.  
 Katz, H., B.A., Yale, '17, Harvard, '21, Hartford.  
 Kaufman, C., Jefferson, '19, New London.  
 Keating, W. P. S., Jefferson, '99, Willimantic.  
 Keddy, R. A., McGill, '24, Stamford.  
 Keefe, G. G., B.A., Holy Cross, '18, Univ. Md., '22, Hartford.  
 Keefe, R. S., B.A., Holy Cross, '20, Boston U., '25, Hartford.  
 Keefe, W. J., B.A., Holy Cross, '27, Univ. Md., '31, Hartford.  
 Keegan, D. F., B.A., Catholic Univ. Univ. Md., '21, Bridgeport.  
 Keeney, R. R., Jr., B.S., Trinity, '30, Tufts, '34, Manchester.  
 Keith, A. R., B.A., Colby, '97, Harvard, '03, Hartford.  
 Kellogg, H. K. W., B.S., Amherst, '89, P. & S., N. Y., '03, Norwalk.  
 Kelly, C. C., B.S., Davidson, '09, Johns Hopkins, '14, Hartford.  
 Kelly, J. F. C., Queen's, '28, Old Greenwich.  
 Kemp, E. P., Tufts, '25, Bridgeport.  
 Kendall, R. E., Johns Hopkins, '21, Hartford.  
 Kennard, N. A., Cornell, '30, New Haven.  
 Keys, R. C., A.B., B.S., U. of Kansas, '27, Fairfield.  
 Kennedy, W. C., Georgetown, '10, Torrington.  
 Kezel, A. P. C., B.S., Georgetown, '35, Stamford.  
 Kilbourn, A., B.A., Yale, '21; P.S., Yale, '22, Yale, '23, Hartford.  
 Kilbourn, C. L., Yale, '97, New Haven.  
 Kilbourn, J. B., B.A., Trinity, P. & S., Balt., '11, Hartford.  
 Kilgus, J. F., Jr., Univ. Md., '31, Litchfield.  
 Kingman, J. H., B.A., Yale, '82, P. & S., N. Y., '85, New Haven (Middlesex County).  
 Kingsbury, I. W., B.A., Harvard, '96, P. & S., N. Y., '03, Hartford.  
 Kinney, K. K., B.S., Iowa, Univ. Iowa, '21, Willimantic.  
 Kinsella, G. C. J., Tufts, '11, New Britain.  
 Kinsella, M. A., Tufts, '12, New Britain.  
 Kirby, F. A., Columbian Univ., '95, New Haven.  
 Kirschbaum, E. H., Yale, '12, Waterbury.  
 Klebanoff, H. E., B.A., Yale, Yale, '25, New Haven.  
 Kleiman, A. D., Tufts, '28, Tufts, '33, Hartford.  
 Klein, A. A., Louisville U., '29, Hartford.  
 Kleiner, S. B., Ph.B., Yale, '11, Yale, '15, New Haven.  
 Klumpp, T. G., B.S., Princeton, '24, Harvard, '28, Washington, D. C. (New Haven Co.).  
 Knapp, C. S., B.A., Colgate; M.S., Colgate, P. & S., N. Y., '19, Greenwich.  
 Knapp, C. W., P. & S., N. Y., '12, Greenwich.  
 Knapp, R. P., P. & S., N. Y., '11, South Manchester.  
 Kneale, H. B., B.A., DePauw Univ., '15, Johns Hopkins, '20, Bridgeport.  
 Knowlton, D. J., B.A., Harvard, Harvard, '12, Greenwich.  
 Knowlton, M., C.P.H., Harvard & Tech., '18, Med. Coll. Ind., '05, Hartford.  
 Kornblut, A., Univ. & Bellevue, '20, Bridgeport.  
 Kott, J. H., A.B., Columbia, '30, Bellevue, '33, Torrington.  
 Kowalewski, V. A., B.A., Yale, '99, Yale, '02, West Haven.  
 Krosnick, M. Y., B.A., Yale, '26, Yale, '30, New Haven.  
 Kuh, C., B.A., Cornell, '14, Yale, '32, New Haven.  
 Kunkel, F. E., Yale, '26, Merion, Pa. (Hartford Co.).  
 Kushlan, S. D., Yale, '35, New Haven.  
 LaBella, L. O., B.A., Wesleyan, P. & S., N. Y., '25, Middletown.  
 Labensky, A., Yale, '21, New London.  
 Lambert, G. S., A.B., Columbia; P. & S., N. Y., '28, Danielson.  
 Lambert, H. B., Jefferson, '09, Bridgeport.  
 Lampson, E. R., B.A., Trinity, '91, P. & S., N. Y., '96, Hartford.  
 Lampson, R. S., A.B., Amherst, '30, Harvard, '34, Hartford.  
 LaMoure, C. TenE., Albany Med., '94, Mansfield Depot.  
 Landry, A. B., Jefferson, '09, Hartford.  
 Landry, B. B., B.A., Holy Cross, '16, Harvard, '20, Hartford.  
 Lang, W. P., Hahn, Phila., '01, North Haven.  
 LaPalme, J. A., Tufts, '25, Putnam.  
 LaPierre, A. J., Univ. Vt., '10, Norwich.  
 LaPierre, L. F., Yale, '01, Norwich.  
 LaPlume, A. A., B.A., Nicolet Sem., '18, Montreal U., '24, Bristol.  
 La Pointe, J. W. H., Laval, '92, Meriden.  
 Larkin, C. L., B.A., Yale, '13, Yale, '15, Waterbury.  
 Larrabee, J. W., Harvard, '26, Hartford.  
 Laszlo, A. E., Univ. Kiel, '23, Bridgeport.  
 Lavietes, P. H., B.S., Yale, '27, Yale, '30, New Haven.  
 Lawlor, M. J., Holy Cross, '02, P. & S., N. Y., '06, Waterbury.  
 Lawson, S. J., Univ. Va., '05, New London.  
 Lawton, F. L., Ph.B., Yale, '90, Yale, '93, Hartford.  
 Lawton, R. J., Md. Med., '08, Terryville.  
 Lay, W. S., Yale, '01, Hamden.  
 Leak, R. L., Albany Med., '98, Middletown.  
 Lear, M., Yale, '11, New Haven.  
 Leddy, P. A., Harvard, '24, New Haven.  
 Leichner, W., Balt. Med., '10, Hartford.  
 Lekston, R. F., Med. Chi., Phila., '15, New Britain.  
 Lena, H. F., B.A., Dartmouth, '12, Johns Hopkins, '16, New London.  
 Leon, A. J., Tufts, '28, Mystic.

- Leonard, G. A., Md. Med., '05, Waterbury.  
 Levenson, A., Tufts, '22, Bridgeport.  
 Levery, C. J., Univ. & Bellevue, '01, Bridgeport.  
 Levin, A. E., Tufts, '30, Hartford.  
 Levin, H. A., B.A., Yale, '15, Univ. & Bellevue, '18, New Haven.  
 Levine, S. S., P. & S., Balt., '12, Hartford.  
 Levinsky, M., Univ. Md., '28, Bridgeport.  
 Levy, A., B.A., Harvard, '25, Tufts, '31, Winsted.  
 Levy, D. F., Ph.B., Yale, '15, Yale, '19, New Haven.  
 Levy, M. N., Tufts, '23, Bridgeport.  
 Levy, N., B.S., Yale, '23, Yale, '27, Branford.  
 Levy, W., Yale, '11, Suffield.  
 Lewis, D. M., B.A., Yale, '97, Johns Hopkins, '01, New Haven.  
 Lewis, H. R., B.S., Univ. Idaho, '29, Univ. Oregon, '32, Hartford.  
 Lewis, R. M., B.A., Univ. Pa., '06, Univ. Pa., '10, New Haven.  
 Lewis, S. D., Geo. Wash., '31, East Hartford.  
 Lieberman, D. L., B.S., Union, '22, N. Y. U., '26, Chester.  
 Linde, J. I., Yale, '08, New Haven.  
 Lindsay, J. C., B.A., Colby, '16, Harvard, '10, Cheshire.  
 Lindsay, M. K., P. & S., N. Y., '10, New Haven.  
 Linskog, G. E., B.S., Mass. Agr., '23, Harvard, '28, New Haven.  
 Lirot, S. L. R., McGill, '32, Meriden.  
 Lischner, M. D., B.S., Trinity, '26, Yale, '30, Hartford.  
 Little, H. C., Yale, '10, New Haven.  
 Little, M. F., B.S., Tufts, '25, Yale, '28, Hartford.  
 Locke, H. L. F., Tufts, '12, Hartford.  
 Lockhart, R. H., B.S., Wesleyan, Yale, '28, Bridgeport.  
 Lockwood, H. DeF., Yale, '01, Meriden.  
 Lockwood, J., B.A., Smith, '26, Johns Hopkins, '30, Greenwich.  
 Loffredo, L., B.A., Univ. Pa., '18, Univ. Pa., '22, Middletown.  
 Logan, W. J., Yale, '25, New Haven.  
 Loiacono, A. J., Ph.B., Brown, '23, Harvard, '27, New London.  
 Lombardi, P. F., Tufts, '21, Waterbury.  
 Loomis, F. N., B.A., Yale, '81, Yale, '83, Derby.  
 LoRusso, D. L., B.A., Cornell, '28, Marquette, '34, Torrington.  
 Loud, N. W., B.A., Harvard, '15, Harvard, '19, New Britain.  
 Lovelace, D. D., B.S., Bates, '30, Tufts, '34, Kingston, N. C. (Litchfield Co.).  
 Loveland, E. K., Yale, '97, Watertown.  
 LoVetere, A. A., B.S., Tufts, '31, Tufts, '34, G. Washington, '35, Kensington.  
 Lowe, R. W., U. City N. Y., '89, Ridgefield.  
 Lowsley, O. S., M.A., Stan., '05, Johns Hopkins, '12, New Canaan.  
 Lubchansky, J. H., B.S., '29, Fordham, Bellevue, '33, Uncasville.  
 Lublin, R. D., B.S., Yale, '25, Johns Hopkins, '29, East Hartford.  
 Luby, T. J., McGill, '14, Hartford.  
 Ludington, N. A., Yale, '01, New Haven.  
 Ludlow, G. C., Harvard, '15, Harvard, '19, New London.  
 Lukoski, W. A., F., B.S., Georgetown, '30, Georgetown, '32, Norwich.  
 Lund, F. A., N. Y. Med. & Flower Hosp., '00, Groton.  
 Lundberg, G. A. F., Jefferson, '19, South Manchester.  
 Lundborg, F. L., M.S., Trinity, '25, Yale, '30, West Hartford.  
 Lyman, D. R., Univ. Va., '99, Wallingford.  
 Lynch, E. J., Univ. Pa., '09, Shelton.  
 Lynch, H., N. Y. U., '34, Westport.  
 Lynch, J. C., U. City, N. Y., '86, Bridgeport.  
 Lynch, J. F., P. & S., Balt., '13, Hartford.  
 Lynch, J. F., Yale, '24, West Hartford.  
 Lynch, R. J., Bellevue, '97, Bridgeport.  
 MacCready, P. B., B.S., Princeton, '16, Johns Hopkins, '21, New Haven.  
 MacCready, W. H., B.A., Acadia, '21, Harvard, '27, Windsor.  
 MacDonald, J. J., Yale, '07, Jersey City, N. J. (New Haven Co.).  
 MacGillivray, D. J., B.A., St. F. X., '15, McGill, '24, Boston (Middlesex Co.).  
 MacLean, D. R., Belt. Med., '01, Stamford.  
 MacLean, E. M., B.A., Univ. Br. Columbia, '24, McGill, '30, West Hartford.  
 Macleod, E. A., Wom. Med., Pa., '25, Niantic.  
 MacNish, J. F., Yale, '17, New Haven.  
 Madden, L. I., B.A., Clark, '05, Harvard, '10, Hartford.  
 Maddren, W. H., B.S., Brooklyn, Poly. Inst., '96, Johns Hopkins, '01, Freeport, L. I. (Fairfield Co.).  
 Magnano, J., B.A., Wesleyan, '23, Yale, '27, Middletown.  
 Maher, J. R., B.S., Holy Cross, '21, Boston U., '27, Stratford.  
 Maher, J. S., Ph.B., Yale, '92, Yale, '96, New Haven.  
 Maher, S. J., Yale, '87, New Haven.  
 Maher, T. F., Yale, '01, Newington.  
 Mahoney, D. F. C., Georgetown, '24, Tucson, Arizona (Hartford Co.).  
 Mahoney, J. J., B.A., Cath. U., '28, McGill, '33, Norwich.  
 Mailhouse, M., Ph.B., Yale, '76, Yale, '78, New Haven.  
 Maine, T. P., Med. Chi., Phila., '12, Mystic.  
 Maislen, S., Univ., Vt., '14, Hartford.  
 Malloy, E. F., B.S., Colgate, '24, Cornell, '28, Stamford.  
 Maloney, D. J., U. City N. Y., '96, Waterbury.  
 Mancoll, M. M., B.S., Trinity, '24, Jefferson, '28, Hartford.  
 Manwaring, I. J., Univ. Pa., '95, Norwich.  
 Margulis, A. B., B.S., Cornell, '15, Bowdoin, '20, Bridgeport.  
 Markoff, K. K., Univ. Vt., '19, Norwich.  
 Marranzini, S., B.S., Trinity, '24, Univ. & Bellevue, '28, Hartford.  
 Marsh, A. D., Yale, '08, Hampton.  
 Marsh, M. L., Eclectic, Cinn., '94, New Britain.  
 Marshall, C. L., B.A., Williams, '20, Howard, '24, New Haven.  
 Martin, J. C., B.S., Yale, '29, Yale, '33, West Hartford.  
 Martin, J. S., Yale, '05, Waterbury.  
 Marvin, H. M., B.A., Davidson, (N. C.), '14, Harvard, '18, New Haven.  
 Maslak, R., U. of Louisville, '34, Warehouse Point.  
 Mason, B. H., Med. Sch. Me., '07, Waterbury.  
 Massa, A. F., B.A., Yale, Yale, '18, New Haven.  
 Mastroianni, L., Univ. Padua, '17, New Haven.  
 Mathews, F. P., A.B., Harvard, '30, Southport.  
 Matteis, J. T., Yale, '26, New Britain.  
 Maurer, L. L., B.A., Beloit, '10, Yale, '16, New Haven.  
 Maxwell, J. A., B.A., St. Bonaventure, '10, Med. Coll. Va., '17, Bridgeport.  
 May, G. W., Milwaukee Med., '95, South Manchester.  
 Maynard, H. H., B.A., Amherst, '11; M.A., Yale, '12, Yale, '16, New Haven.  
 McAlenney, P. F., B.A., Catholic U., '25, Yale, '29, New Haven.  
 McCarthy, J. S., B.A., Yale, '19, L. I. Coll. Hosp., '22, New Haven.  
 McClellan, W. E., Toronto U., '04, Hartford.  
 McCook, J. B., B.S., Trinity, '90, P. & S., N. Y., '94, Hartford.  
 McCormack, C. J., B.S., Yale, '26; M.S., Univ. Minn., '34, Yale, '29, Hartford.  
 McCreery, J. A., B.A., '06, M.A., '07, Harvard, P. & S., N. Y., '10, Greenwich.  
 McCue, M. P., B.S., R. I. State, '30, Harvard, '34, East Hartford.  
 McCullough, E. A., A.B., Bowdoin, '90, Harvard, '94, Meriden.  
 McDermott, J. F., B.S., Union, '17, Cornell, '23, Hartford.  
 McDonnell, R. A., B.A., Yale, '90, Yale, '92, New Haven.  
 McDonnell, R. E., B.A., Yale, '17, Yale, '20, New Haven.  
 McFarlan, F. W., B.A., Univ. Vt., '25, Univ. Vt., '28, Stamford.  
 McGaughey, J. D., Jefferson, '10, Wallingford.  
 McGourty, A. F., N. Y. Homeo., '18, Stamford.  
 McGourty, D. P., B.S., N. Y. U., '27, Jefferson, '27, Stamford.  
 McGrath, J. F., B.A., Holy Cross, McGill, '23, Hartford.  
 McGrath, J. H., Yale, '08, Waterbury.  
 McGuire, W. C., Yale, '09, New Haven.  
 McHugh, J. F., Harvard, '01, Thompsonville.  
 McIntosh, E. F., Yale, '97, New Haven.  
 McLarney, T. J., P. & S., Balt., '97, Waterbury.  
 McLaughlin, J. H., P. & S., Balt., '09, Jewett City.  
 McLean, J. C. J., Tufts, '20, Hartford.  
 McLean, T. S., B.S., Vt., '34, Bridgeport.  
 McLellan, P. G., B.A., Bowdoin, '21, Harvard, '25, Hartford.  
 McMahon, F. C., Fordham, '19, Stamford.  
 McMahon, W. H., Jr., Fordham, '20, South Norwalk.  
 McManus, J. P., P. & S., Balt., '14, Bridgeport.  
 McNulty, T. F., Georgetown, '32, Hartford.  
 McPartland, P. F., Balt. Med., '05, Hartford.  
 McPherson, S. H., Tufts, '13, Hartford.  
 McQueen, A. S., Yale, '01, Branford.  
 McQueeney, A. M., Yale, '05, Bridgeport.  
 Mead, K. C. H., Wom. Med., Pa., '88, Haddam.  
 Meade, C. H. B., Louisville U., '02, Stamford.  
 Mekrut, J. A., St. Louis U., '31, Meriden.  
 Mendillo, A. J., Yale, '07, New Haven.  
 Mendillo, J. C. F., B.S., Yale, '26, Yale, '30, New Haven.  
 Menousek, J. A., Univ. Vt., '32, Plainville.  
 Merrill, W. T., B.A., Dartmouth, '87, Dartmouth, '90, East Milton, Mass. (New Haven Co.).  
 Merriman, M. H., B.A., Yale, '01, P. & S., N. Y., '06, Waterbury.  
 Meschter, E. F., Med. Chi., Phila., '98, Stamford.  
 Metcalf, E. H., Jefferson, '14, Rockville.



- Meyer, F. M., Ph.G., Columbia, '19; B.S., Univ. Ind., '26, Univ. Ind. '28, Bridgeport.
- Meyers, R. A., B.A., Univ. Mich., Univ. Mich., '31, Watertown.
- Michalowski, V. S., Boston U., '29, New Britain.
- Middlebrook, L. F., Jr., B.S., Yale, '26, Johns Hopkins, '30, Hartford.
- Mikolainis, M. V., B.A., Columbia, '30, P. & S., N. Y., '33, Hartford.
- Milano, N. A., B.S., Georgetown, '25, Georgetown, '27, West Haven.
- Miles, H. S., Ph.G., N. Y., '88, P. & S., N. Y., '91, Bridgeport.
- Miller, H. B., Univ. Ala., '30, Rush, '33, Hartford.
- Miller, J., B.A., Cornell, '12, Cornell, '15, Norwalk.
- Miller, J. R., A.B., Yale, '07, Johns Hopkins, '11, Hartford.
- Millet, J. A. P., A.B., Harvard, '10, Harvard, '14, New York City (Fairfield Co.).
- Mills, B. L., Univ. Vt., '25, Meriden.
- Miniter, J. J., B.A., Georgetown, '25, Georgetown, '30, North Haven.
- Minor, L. W., Trinity, '27, Yale, '32, Middletown.
- Mirabile, C. S., Ph.B., Brown, '25, McGill, '30, Hartford.
- Misuk, J. F., B.S., Georgetown, '31, Georgetown, '32, Meriden.
- Mongillo, F., B.S., Yale, '24, Med. Coll. Va., '28, New Haven.
- Montano, R. A., B.S., Trinity, '29, Tufts, '33, Hartford.
- Mooney, S., Tufts, '27, Bridgeport.
- Moorad, P. J., B.S., Hobart, Rochester U., '31, New Britain.
- Moore, C. D., Queen's, '28, Newtown.
- Moore, D. DeC. Y., N. Y. Homeo, '95, South Manchester.
- Moore, H. D., Hahn, Phila., '93, Danbury.
- Moore, H. F., Mo. Med., '98, Bethel.
- Moore, H. H., Univ. Vt., '98, Stafford Springs.
- Moore, M. R., Greens Univ., '29, Gales Ferry.
- Moore, R. L., P. & S., N. Y., '27, Norwalk.
- Moore, W. J., B.A., Columbia, '19, P. & S., N. Y., '21, Cheshire.
- Morgan, W. O., Georgetown, '30, Westport.
- Moriarty, J. L., Harvard, '96, Waterbury.
- Moriarty, M. E., Yale, '26, South Manchester.
- Morrill, H. F., B.A., Bowdoin, '25, Waterbury.
- Morris, W. H., Johns Hopkins, '12, Wallingford.
- Morrissey, M. J., P. & S., Balt., '97, Hartford.
- Morrissey, W. T., B.A., Holy Cross Coll., P. & S., Balt., '09, New Britain.
- Morse, A. H., Johns Hopkins, '06, New Haven.
- Morse, L. R., B.S., Colby, '20, Queen's, '26, Norwich.
- Morse, W. J., B.S., Univ. Vt., '28, Univ. Vt., '31, New London.
- Moser, O. A., Yale, '02, Rocky Hill.
- Mouradian, M. G., Wom. Med., Pa., '13, New Britain.
- Moylan, T. P., Buffalo U., '22, Hartford.
- Moyle, H. B., B.A., MacMasters, '06; M.A., Clark, '11, Toronto U., '10, Hartford.
- Mueller, R. A., Hahn, Phila., '03, Waterbury.
- Mullen, J. J., Tufts, '29, Waterbury.
- Mullins, S. F., Univ. & Bellevue, '06, Danbury.
- Munson, W. R., Balt. Med., '92, Westport.
- Murdock, T. P., Balt. Med., '10, Meriden.
- Murphy, B. P., Jefferson, '96, Putnam.
- Murphy, C. A., B.S., L. I. Coll., '33, Stamford.
- Murphy, J., Univ. Pa., '95, Middletown.
- Murphy, J. E., Med. Chi., Phila., '09, Hartford.
- Murphy, J. J., B.S., St. Mary, '31, Georgetown, '35, Danbury.
- Murphy, O. L., Univ. Vt., '21, Simsbury.
- Murphy, T. B., B.A., Harvard, '19, Harvard, '23, Wallingford.
- Murphy, T. F., B.A., Catholic U., '29, Jefferson, '33, Hartford.
- Murray, H. J., Jefferson, '16, Stamford.
- Murray, T. J., Univ. Md., '10, New London.
- Murray, W. J., Ph.B., Prov. Coll., Jefferson, '32, Bridgeport.
- Musselman, L. K., B.S., Pa. Coll., '15, Johns Hopkins, '19, New Haven.
- Nagle, W. T., Med. Chi., Phila., '14, Southington.
- Nahum, L. H., Ph.B., Yale, Yale, '16, New Haven.
- Naylor, J. H., Univ. Vt., '95, Hartford.
- Neidlinger, W. J., B.S., Rutgers, '29, Cornell, '33, Hartford.
- Nelson, W. N., B.S., Wesleyan, '22, Geo. Wash., '26, Cromwell.
- Nemotin, J., P. & S., N. Y., '05, Stamford.
- Nespor, R. W., A.B., Dartmouth, '28, Boston U., '33, Westport.
- Nestos, P. A., Rush, '14, Bristol.
- Nettleton, I. LaF., L. I. Coll. Hosp., '98, Bridgeport.
- Neumann, H. A., L. I. Coll. Hosp., '09, Bridgeport.
- Neumann, V. F., Univ. Mich., '29, Norwich.
- Neuswanger, C. H., M.S., Yale, '25, Harvard, '23, Waterbury.
- Newman, J. T., B.A., Yale, '16, Yale, '19, New Haven.
- Newton, L., N. Y. Homeo, '31, Bridgeport.
- Nichols, C. W., Univ., Vt., '20, Bridgeport.
- Nichols, R. W., Ph.B., Yale, '08, Johns Hopkins, '12, New Haven.
- Nickum, J. S., Tufts, '18, Bridgeport.
- Nodelman, J., B.S., Yale, '26, Yale, '29, New Haven.
- Nolan, D. A., Ph.G., Phila., '93, Med. Chi., Phila., '95, Middletown.
- Nolan, J. F., B.A., Cath. U., McGill, '32, Bridgeport.
- Northrop, R. A., B.S., Jefferson, '32, Norwalk.
- Oberg, F. T., B.A., Clark, '12, Harvard, '16, Hartford.
- O'Brasky, L., Jefferson, '22, New Haven.
- O'Brien, F. J., Fordham, '17, Bridgeport.
- O'Brien, J. F., Yale, '08, Waterford.
- O'Brien, W. H. J., Ph. B., Yale, '08, Yale, '12, New Haven.
- O'Connell, J. F., Univ. Vt., '21, Hartford.
- O'Connell, J. G., Tufts, '17, Bridgeport.
- O'Connell, M. F., B.A., Yale, '19, Yale, '22, Hartford.
- O'Connell, P. H., Loyola, '29, Norwich.
- O'Connell, W. M., Ph.B., Yale, Yale, '17, West Haven.
- O'Connor, D. S., Bowdoin, '19, New Haven.
- Oelschlegel, H. C., Jefferson, '11, Torrington.
- Oesau, H. T., Jefferson, '26, Stratford.
- O'Flaherty, E. P., Cornell, '01, Hartford.
- Ogden, A. W., Hahn, Chicago, '13, Norwich.
- Ogden, R. T., B.A., Bowdoin, '21, Harvard, '24, Hartford.
- O'Hara, W. J. A., P. & S., Balt., '93, Bridgeport.
- Olmsted, J. G. M., C.M., McGill, McGill, '25, Hartford.
- O'Loughlin, T. F., U. City N. Y., '96, Rockville.
- O'Malley, M. A., Univ. Iowa, '33, West Hartford.
- O'Meara, F. P., N. Y. M. C., '36, Glenbrook.
- Onderdonk, H. J., N. Y. U., '97, East Hartford.
- O'Neil, W. H., Balt. Med., '11, Ansonia.
- O'Neil, M. L., B.S., Conn. State, '25, Yale, '29, Jewett City.
- O'Neill, C. W., Yale, '20, Yale, '26, Hartford.
- Osborn, S. H., C.P.H., Harvard, '15, Tufts, '14, Hartford.
- Osborne, O. T., M.A., Yale, '99, Yale, '84, New Haven.
- Osgood, C., P. & S., N. Y., '03, Norwich.
- O'Shaughnessy, E. J., Univ. & Bellevue, '99, New Canaan.
- Osmond, R. H., Ph.B., Yale, '17, Yale, '23, Hartford.
- Otis, F. N., Tufts, '18, Meriden.
- Otis, I. S., Geo. Wash., '17, Meriden.
- Ottenheimer, E. J., B.S., Univ. Va., '20, Univ. Va., '22, Willimantic.
- Oughterson, A. W., M.S., Yale, '24, Harvard, '29, New Haven.
- Outerson, R. A., Jefferson, '02, Hartford.
- Padula, R. D., Cinn. C. of Med., '29, '30, Norwalk.
- Padula, V. D., B.S., Univ. Alabama, '29, M.S., Univ. Alabama, '30, Univ. Rome, Italy, '35, Hartford.
- Paine, R. C., Dartmouth, '00, Thompson.
- Paladino, J. S., B.A., Colgate, '22, Boston U., '26, Hartford.
- Palmieri, M. W., Royal Univ. Naples, '33, New Haven.
- Papa, J. S., Tufts, '28, Bristol.
- Parente, L., B.S., Yale, '27, Emory, '31, New Haven.
- Paris, M., N. Y. U., '30, South Norwalk.
- Park, P. A., Univ. Ia. (Homeo), '10, Bristol.
- Parker, J. W., Yale, '06, Hartford.
- Parker, T. E., Yale, '04, Waterbury.
- Parlato, M. A., Yale, '08, Derby.
- Parmelee, B. M., Univ. Vt., '19, Bridgeport.
- Parmelee, E. K., L. I. Coll. Hosp., '89, Ansonia.
- Parshley, P. F., Univ. Pa., '27, West Hartford.
- Partridge, W. P., B.A., Harvard, '16, Harvard, '20, Hartford.
- Pascal, T. J., B.S., Yale, '27, Rush, '31, Bridgeport.
- Pasuth, B. C., Univ. Md., '16, Bridgeport.
- Patterson, D. C., P. & S., Balt., '06, Bridgeport.
- Patterson, F. A., B.A., New Brunswick, Harvard, '27, Norwalk.
- Paul, F., Munich U., '24, Greens Farms.
- Paul, J. R., B.A., Princeton, '15, Johns Hopkins, '19, New Haven.
- Paul, V. A., Hahn, Chicago, '13, Stamford.
- Peacock, A. U., A.B., Colby, '27, Rush, '33, Hartford.
- Peck, R. E., Ph.B., Yale, '90, Yale, '93, New Haven.
- Pekala, J. G., Univ. Vt., '32, Northampton, Mass. (Hartford Co.).
- Pendleton, C. E., Yale, '03, Colchester.
- Pendleton, E. R., P. & S., Boston, '04, Granby.
- Pennington, H. F., B.S., Rutgers, '23, Harvard, '27, Meriden.
- Pepe, C. T., B.A., Yale, '19, Hahn, Chicago, '22, Derby.
- Perdue, R. G., Starling, '95, Norwalk.
- Perakes, G. P., B.S., Georgetown, '31, Georgetown, '32, New Britain.
- Perkins, C. W., Hahn, Phila., '01, Norwalk.
- Perreault, J. N., Tufts, '07, Danielson.

- Perrins, H. B., B.A., Yale, '16, Yale, '18, New Haven.  
 Perry, M. J., Wom. Med. Homeo., N. Y., '03, Norwalk.  
 Peters, H. LeB., B.A., Univ. N. B., McGill, '07, Bridgeport.  
 Peters, J. P., B.A., Yale, '08, P. & S., N. Y., '13, New Haven.  
 Peterson, C. K., Tufts, '05, Lakeville.  
 Petrelli, J., Ph.B., Yale, '21, Yale, '25, New Haven.  
 Petrucci, R. J., Columbia, '34, Meriden.  
 Phelps, M. O., B.S., McGill, '25, McGill, '29, Hartford.  
 Phelps, P. S., McGill, '30, Hartford.  
 Phillipson, S., N. Y. Homeo., '18, New Haven.  
 Phillips, A. N., P. & S., N. Y., '83, Glenbrook.  
 Phillips, F. L., Ph.B., Yale, '02, Yale, '05, New Haven.  
 Phillips, H. S., Toronto U., '22, Westport.  
 Phillips, K. T., Tufts, '19, Putnam.  
 Piascecki, J. L., Maryland, '12, Norwalk.  
 Piasta, P. F., Boston, U., '24, Middletown.  
 Piazza, G. J., B.S., Fordham, '28, Boston U., '32, New Haven.  
 Pierson, L. A., Tufts, '27, Meriden.  
 Pierson, E. M., B.A., Vassar, '07; M.A., Columbia, '08, Yale, '24, Cromwell.  
 Pike, E. R., Univ. Mich., '98, East Woodstock.  
 Pike, M. M., B.A., Brown, '21, Harvard, '25, Hartford.  
 Pileggi, P., Univ. Md., '28, Bridgeport.  
 Pine, C. S., B.A., Univ. Mich., '33, Univ. Mich., '31, Naugatuck.  
 Pinn, A. S., Laval, '29, New Haven.  
 Pinney, A. W., Hahn., Phila., '00, Norfolk.  
 Pinney, R. W., P. & S., N. Y., '88, Derby.  
 Pitcock, M. P., B.A., '25; M.A., '26, Franklin & Marshall, Tufts, '30, Fairfield.  
 Platt, I. S., Univ. S. Calif., '12, Waterbury.  
 Platt, W. L., P. & S., N. Y., '81, Norwich (Litchfield Co.).  
 Plukas, J. M., Georgetown, '32, Bridgeport.  
 Plunkett, T. F., L. I. Coll. Hosp., '08, Derby.  
 Polito, F. L., Ph.B., Yale, '17, Yale, '21, Torrington.  
 Pomeroy, N. A., P. & S., N. Y., '96, Waterbury.  
 Poole, A. K., B.S., Princeton, Johns Hopkins, '23, New Haven.  
 Poole, L. E., D.P.H., Yale, '25, Tufts, '07, Fairfield.  
 Porter, D. W., B.A., Yale, '08, Harvard, '12, New Haven.  
 Potter, F. E., B.A., Williams, '85, P. & S., N. Y., '89, Middletown.  
 Poverman, A. D., B.S., Vermont, '29, Vermont U., '32, New Haven.  
 Powel, W., B.A., Queen's, '21, Queen's, '24, New Haven.  
 Powers, G. F., B.S., Purdue, '08, Johns Hopkins, '13, New Haven.  
 Powers, J. T. H., P. & S., Balt., '10, Norwalk.  
 Pratt, A. M., Bellevue, '92, Deep River.  
 Pratt, A. P., B.A., Clark, '13; C.P.H., Mass. Inst. Tech., '16, Harvard, '22, Windsor.  
 Pratt, E., P. & S., N. Y., '87, Torrington.  
 Pratt, N. T., B.A., Trinity, '94; M.A., Trinity, '97, Yale, '01, Old Saybrook (Fairfield Co.).  
 Preston, T. R., B.A., Yale, '21, Yale, '25, Hartford.  
 Priddy, F. E., B.S., Northwestern, '27, Northwestern, '28, Hartford.  
 Prout, C. T., B.A., Cornell, '21; M.S., Univ. Minn., '29, Cornell, '24, Wallingford (Hartford Co.).  
 Pullen, R. W., B.S., Univ. Wisc., Yale, '21, New Britain.  
 Purinton, C. O., Ph.B., Yale, '97, Yale, '00, Sunmount, N. Y., (Hartford Co.).  
 Purney, J., Balt. Med., '06, New Britain.  
 Putnam, M. C., B.A., Radcliffe, '17, Johns Hopkins, '21, New Haven.  
 Pyle, E., P. & S., N. Y., '15, Waterbury.  
 Quantrano, J. C., Univ. Vt., '31, Bridgeport.  
 Quarrier, S. S., B.S., Yale, '28, P. & S., N. Y., '32, Hartford.  
 Quinlan, R. V., M.Sc. (Med.) Univ. Pa., '27, Balt. Med., '10, Meriden.  
 Quinn, J. F., Balt. Med., '06, Bridgeport.  
 Quinn, R. J., P. & S., Balt., '13, Waterbury.  
 Quintiliani, A., B.A., Harvard, '25, Harvard, '29, Norwich.  
 Rabinovitch, A., Univ. Vt., '19, New London.  
 Rademacher, E. S., Univ. Iowa, '23, New Haven.  
 Radin, M. J., B.A., Yale, '14, P. & S., N. Y., '16, Hartford.  
 Radom, F., Wom. Med., Pa., '12, Hartford.  
 Radom, M. M., Jefferson, '25, Hartford.  
 Rafferty, F. B., Jefferson, '28, Willimantic.  
 Rand, R. F., Ph.B., Yale, '95, Johns Hopkins, '00, New Haven.  
 Randall, W. S., Ph.B., Yale, '83, P. & S., N. Y., '86, Shelton.  
 Rankin, B. F., Ph.B., Yale, '13, McGill, '19, Hartford.  
 Rapp, A. G., B.S., Harvard, '26, Cornell, '29, New London.  
 Rasmussen, H. N., Tufts, '25, Uncasville.  
 Rawls, E. C., B.S., Va., '31, Stamford.  
 Raymer, J. G., B.A., Harvard, '25, Norwich.  
 Reynolds, R., B.A., Yale, '09, P. & S., N. Y., '14, Hadlyme.  
 Rende, E. G., Jefferson, '16, Watertown.  
 Reardon, W. F., Balt. Med., '01, Hartford.  
 Reich, U. S., Univ. Va., '09, Bridgeport.  
 Reichenbach, F., Tufts, '33, Woodbury.  
 Reidy, D. D., B.A., Harvard, '23, P. & S., N. Y., '27, Hartford.  
 Reidy, M. J., P. & S., N. Y., '10, Winsted.  
 Reilly, F. H., Yale, '97, New Haven.  
 Reilly, W. J., Tufts, '35, Naugatuck.  
 Renahan, J. M., Tufts, '28, Ansonia.  
 Rentsch, S. B., Univ. Mich., '23, Derby.  
 Resnik, E., B.A., Yale, '25, McGill, '30, New Britain.  
 Resnik, W. H., Ph.B., Yale, Johns Hopkins, '21, Stamford.  
 Resnisky, A. F., Univ. Mich., '23, Hartford.  
 Reynolds, H. St. C., Yale, '10, Hartford.  
 Reynolds, H. S., B.S., Union Coll., '11, Albany Med., '14, Hartford.  
 Reynolds, R. G., B.S., Trinity, '22, Harvard, '26, Hartford.  
 Ribner, H., B.S., Tufts, '34, Bridgeport.  
 Riccitelli, M. L., Ph.B., Yale, '19, Yale, '22, New Haven.  
 Richardson, R. A., Univ. Vt., '14, Bristol.  
 Richman, R. D., Buffalo U., '08, Hartford.  
 Ricksher, C., B.S., Parsons, '01, Johns Hopkins, '05, Norwich.  
 Riendeau, P. L., Univ. Paris, '27, Norwich.  
 Rindge, M. P., P. & S., Cleveland, '05, Madison.  
 Rindge, N. P., B.S., '32, Yale, '35, Clinton (Middlesex Co.).  
 Riordan, M. D., Univ. Vt., '12, Willimantic.  
 Riordan, W. J., Univ. Md., '09, Wallingford.  
 Robbins, B. B., U. City N. Y., '94, Bristol.  
 Robbins, C. L., Yale, '29, New Haven.  
 Roberts, D. J., Univ. Vt., '16, Hartford.  
 Roberts, E. R., Med. Sch. Me., '13, Bridgeport.  
 Roberts, F. W., Johns Hopkins, '21, New Haven.  
 Robinson, A. J., Toronto U., '23, West Hartford.  
 Robinson, W. J. T., L. I. Coll. Hosp., '21, Broad Brook.  
 Roccapiore, B. A., Niagara, Jefferson, '31, Middletown.  
 Roch, G. E., B.A., Holy Cross, '30, Tufts, '34, Willimantic.  
 Roche, A. F., B.S., Georgetown, '15, Georgetown, '17, Hartford.  
 Roche, T. J., P. & S., Balt., '11, Bridgeport.  
 Rockwell, A. E., Johns Hopkins, '21, Bridgeport.  
 Rogers, F. P., Syracuse Univ., '33, Hartford.  
 Rogers, O. F., Jr., B.A., Harvard, '08, Harvard, '12, New Haven.  
 Rogers, P. H., Yale, '12, West Haven.  
 Rogers, R. P., B.A., Harvard, '21, Harvard, '25, Greenwich.  
 Rogol, L., B.S., Yale, '29, L. I. Coll., '33, Danbury.  
 Rogol, O., Ph.B., Brown, '20, Dalhousie, '32, Seymour.  
 Rogowski, B. A., Ph.B., Yale, '20, New Haven.  
 Rollins, H. B., B.S., Dartmouth, '20, Yale, '22, Hartford.  
 Romaniello, R. J., B.A., Holy Cross, '23, P. & S., N. Y., '27, Hartford.  
 Rooney, J. F., Balt. Med., '03, Hartford.  
 Root, J. H., Ph.B., Harvard, '18, Waterbury.  
 Root, M. T., B.A., Cornell, '15, Cornell, '18, West Hartford.  
 Root, S. Q., Wom. Med. Homeo., N. Y., '96, Stamford.  
 Root, S. T. A., B.A., Barnard, '14; M.A., Columbia, '15, Cornell, '19, West Hartford.  
 Rose, S. A., N. Y. U. & Bell., '23, Stamford.  
 Rosenbaum, G. J., B.S., Trinity, '30, Tufts, '34, Hartford.  
 Rosenthal, I., L. I. Coll., '10, South Norwalk.  
 Roth, F. E., Univ. & Bellevue, '25, Hartford.  
 Rothblatt, R., Tufts, '32, A.B., Harvard, '37, Willimantic.  
 Rothschild, M. L., Ph.B., Yale, '19, Paris U., '26, New Haven.  
 Rowe, M. J., P. & S., Balt., '96, Bridgeport.  
 Rowell, E. E., Hahnemann, '99, Stamford.  
 Rowley, A. M., Univ. Vt., '97, Hartford.  
 Rowley, J. C., B.A., Harvard, '02, Harvard, '06, Hartford.  
 Rowley, R. L., Yale, '03, Hartford.  
 Roy, J. L., B.A., Clark, '30, Tufts, '31, North Grosvenordale.  
 Rubin, G. A., Edinburgh, '32, New Haven.  
 Ruby, M. H., Ph.B., Yale, '18, P. & S., N. Y., '21, Waterbury.  
 Ruickoldt, C. A., Yale, '07, New Haven.  
 Russell, E. F., B.A., Yale, '16, Cornell, '20, Santa Barbara, Cal. (New Haven Co.).  
 Russell, G. G., B.A., Harvard, Harvard, '19, Hartford.  
 Russell, J. J., N. Y., Homeo., '87, Putnam.  
 Russell, T. H., Ph.B., Yale, '06, Yale, '10, New Haven.  
 Russell, W. I., Yale, '09, New Haven.  
 Russman, C., Tufts, '23, Middletown.



- Russo, J. D., Ph.B., Yale, '12, Yale, '16, New Haven.  
 Ryan, F. J., B.S., Trinity, '30, Tufts, '35, Hartford.  
 Ryan, T. M., B.A., Loyola Coll. Balt. Med., '02, Torrington.  
 Ryder, R. H., P. & S., Balt., '13, Waterbury.  
 Ryder, W. H., Jefferson, '20, New Haven.  
 Rynard, W. M. W., Toronto U., '21, Stamford.  
 Sagarino, J. F., Ph.B., Yale, '09, P. & S., N. Y., '13, Hartford.  
 Salinger, R., Johns Hopkins, '25, New Haven.  
 Salmond, P. H., Univ. Manitoba, '20, Stamford.  
 Salvin, B. L., Geo. Wash., '21, Hartford.  
 Samponaro, N., B.S., Trinity, '25, Johns Hopkins, '29, Hartford.  
 Sanderson, R. V., Univ. Vt., '20, Winsted.  
 Sandulli, G. R., B.A., Harvard, '25, Tufts, '29, Waterbury.  
 Sanford, C. E., Yale, '06, New Haven.  
 Sansone, N. M., Gross Med., '02, Bridgeport.  
 Santoro, G. M., B.A., Cornell, '24, Waterbury.  
 Satti, C. J., Yale, '23, New London.  
 Sayers, J. J., B.S., Trinity, '30, Tufts, '35, Hartford.  
 Scafarello, P. J., Tufts, '26, Hartford.  
 Scanlon, T. F., Yale, '07, Norwalk.  
 Scarbrough, M. McR., B.A., Univ. Oregon, '02; M.A., Yale, '05, Yale, '07, New Haven.  
 Schaefer, A. M., Ph.B., Yale, '21, Yale, '25, Hartford.  
 Schaefer, J., Tufts, '17, Hartford.  
 Schechtman, C. T., Univ. Vt., '26, New Britain.  
 Schiavetti, A., B.A., Columbia, '26, Tufts, '30, Stafford Springs.  
 Schmidt, N. L., B.S., Yale, Vanderbilt, '27, Stamford.  
 Schneider, W., B.S., N. Y. U., '27; B.S. (Med.), Univ. Kan., '28, Geo. Wash., '30, Rockville.  
 Scholl, R. F., Yale, '12, New Haven.  
 Schuman, D. H., B.S., Columbia, '20, P. & S., N. Y., '22, Hartford.  
 Schupack, S. D., Tufts, '24, New Britain.  
 Schwartz, P. E., Tufts, '31, Portland.  
 Scott, C. R., B.S., Westminster, '15, Yale, '19, New Haven.  
 Scott, J. C., B.S., Haverford, '29, U. of Penn., '33, Essex.  
 Scott, W. J., Fordham, '16, Derby.  
 Scoville, D. H., Cinn. U., '30, New London.  
 Scudder, W. D., Harvard, '20, Hartford.  
 Seabury, R. B., Harvard, '18, New Haven.  
 Sears, L., Harvard, '29, Norwich.  
 Segnalla, E., Yale, '12, New Haven.  
 Segur, G. C., P. & S., N. Y., '82, Hartford.  
 Seibert, A. F., Yale, '27, Hartford.  
 Seigall, H. A., Univ. Vt., '14, Hartford.  
 Sekerak, A. J., Univ. Md., '22, Bridgeport.  
 Sekerak, R. A., Maryland, '29, Bridgeport.  
 Sekerak, R. J., Maryland, '34, Bridgeport.  
 Selleck, N. B., L. I. Coll. Hosp., '24, Danbury.  
 Sellow, R. C., Yale, '08, Canaan.  
 Senfield, M., Univ. Vienna, '20, Ansonia.  
 Serafin, P. J., B.S., Dartmouth, '18, N. Y. U., '21, New Haven.  
 Sette, A. J., Geo. Wash., '27, Stamford.  
 Shafer, A., Univ. Pa., '18, Hartford.  
 Shaffer, T. E., Cornell, '29, Cornell, '32, Farmington.  
 Shaw, G. H., Syracuse U., '08, Hartford.  
 Shay, F. L., Ph.B., Yale, '21, Tufts, '25, New Haven.  
 Shea, C. J., Maryland, '33, Bridgeport.  
 Shea, D. E., Loyola, '17, Hartford.  
 Shea, J. F., P. & S., Balt., '11, Bridgeport.  
 Shea, M. S., Univ. Vt., '21, New Haven.  
 Shea, R. E., Yale, '30, Willimantic.  
 Shea, R. O., P. & S., Balt., '14, Bridgeport.  
 Shea, V. T., Tufts, '31, Waterbury.  
 Sheahan, W. L., P. & S., Balt., '12, New Haven.  
 Sheehan, M. T., Yale, '10, Wallingford.  
 Shepard, W. G., Toronto U., '08, Hazardville.  
 Shepard, W. M., B.A., Dartmouth, '25, P. & S., N. Y., '29, Putnam.  
 Sherer, H. C., U. City N. Y., '92, South Norwalk.  
 Shermak, J. V., Univ. Vienna, '19, Stamford.  
 Shirk, S. M., Hahn., Phila., '97, Stamford.  
 Shockley, F. M., Univ. Med. Coll. Kansas C., '13, Stamford.  
 Shulman, D. N., B.A., Johns Hopkins, '13, Johns Hopkins, '17, Hartford.  
 Shure, A. L., Tufts, '27, Iowa City, Iowa (New Haven Co.).  
 Sigal, J. B., B.S., Trinity, '19, Yale, '23, Hartford.  
 Siuciano, R. A. V., Hahn., Chicago, '24, Bristol.  
 Sills, T. H., B.S., Yale, '24, Yale, '27, Newington.  
 Silverberg, S. J., P. & S., N. Y., '21, New Haven.  
 Simmons, E. M., B.A., Bowdoin, '19, Yale, '23, Southington.  
 Simon, L. G., B.S., N. Y. U., '21, N. Y. U., '27, South Norwalk.  
 Simonton, F. F., Med. Sch. Me., '03, Thompsonville.  
 Skiff, S. E., Hahn., Phila., '03, New Haven.  
 Skinner, C. E., LL.D., Rutherford, '01, Yale, '91, New York City & Darien (New Haven Co.).  
 Slater, M., Ph.B., Yale, '19, Yale, '24, Hamden.  
 Slossberg, D. S., B.S., Trinity, '30, Tufts, '34, Hartford.  
 Slys, L. B., Boston U., '27, New Britain.  
 Smail, M. L., Univ. Vt., '93, New London.  
 Smith, A. C., P. & S., Balt., '10, Danbury.  
 Smith, C. S., B.A., Yale, '12, Hahn., Phila., '16, New Haven.  
 Smith, E. D., B.A., Yale, '96, Yale, '99, Bridgeport.  
 Smith, D. P., B.A., Yale, '10, Yale, '12, Meriden.  
 Smith, E. H., B.A., Amherst, '85, P. & S., N. Y., '89, Redding.  
 Smith, E. L., Yale, '96, Waterbury.  
 Smith, E. T., M.A., Trinity, '03, Hon., Yale, '97, Hartford.  
 Smith, F. DeW., Hahn., Phila., '10, Guilford.  
 Smith, F. M., Univ. Vt., '11, Willimantic.  
 Smith, G. A., B.A., Yale, '03, Johns Hopkins, '07, Long Hill.  
 Smith, G. M., B.A., Yale, '01, P. & S., N. Y., '05, Pine Orchard, Branford.  
 Smith, G. M., Univ. Ill., '07, Hartford.  
 Smith, G. T., Yale, '08, Waterbury.  
 Smith, H. B., M.P.H., Harvard, '31, Univ. Pa., '26, West Hartford.  
 Smith, J. J., B.A., Columbia, '26, Univ. Md., '30, Bridgeport.  
 Smith, M., U. City N. Y., '83, New Haven.  
 Smith, N. N., Ph.B., Yale, '21, Yale, '24, New Haven.  
 Smith, S. M., Tufts, '20, Greens Farms.  
 Smith, S. R., B.A., Bucknell, '09, Med. Chi., Phila., '16, Bridgeport.  
 Smith, V. J., Univ. Pa., '20, New Britain.  
 Smith, W. B., Univ. Pa., '22, Wethersfield.  
 Smith, W. E., Univ. Mich., '10, Stamford.  
 Smykowski, B. L., Balt. Med., '11, Bridgeport.  
 Snaveley, M. E., B.A., Mt. Holyoke, Yale, '25, West Haven.  
 Sneiderman, G. I., Conn. State, '32, Virginia, '36, Hartford.  
 Snelling, P. W., B.A., Univ. Ga., '17, Harvard, '21, Hartford.  
 Snurkowski, C. V., B.A., Georgetown, '25, New Haven.  
 Sollosy, A., Tufts, '27, Bridgeport.  
 Solomon, C. I., B.S., C. City N. Y., '21, Yale, '25, Meriden.  
 Soltz, T., Jefferson, '11, New London.  
 Soper, W. B., B.A., Yale, P. & S., N. Y., '08, West Haven.  
 Soreff, L., B.S., Tufts, '28, Tufts, '32, East Hampton.  
 Souther, S. P., B.A., Univ. Neb., '18, Johns Hopkins, '23, Hartford.  
 Sowell, N. B., Temple, '26, Ossining, N. Y. (Fairfield Co.).  
 Spector, N., B.S., Tufts, Tufts, '24, Willimantic.  
 Speight, H. E., Georgetown, '27, Middletown.  
 Speir, E. B., B.A., Kansas, '29, Kansas U., '33, New Haven.  
 Spreter, L., Trinity, '29, Univ. Roch., '33, Hartford.  
 Sperandeo, A., Ph.B., Yale, '21, Yale, '25, New Haven.  
 Sperry, F. N., Yale, '94, New Haven.  
 Spicer, E., Yale, '05, Waterbury.  
 Spillane, B., B.A., Dartmouth, '13, Tufts, '16, Hartford.  
 Sprague, C. H., P. & S., N. Y., '04, Bridgeport.  
 Squillacote, V. J., B.S., Trinity, '30, Univ. Rome (Italy), '34, New Britain.  
 Stahl, W. M., Univ. Md., '14, Danbury.  
 Standish, E. M., B.S., Wesleyan, '18, Harvard, '22, Hartford.  
 Standish, F. B., Yale, '03, New Haven.  
 Standish, H. C., Cornell, '28, Hartford.  
 Standish, J. H., U. City N. Y., '95, Hartford.  
 Standish, W. A., B.A., Yale, '22, Yale, '25, Hartford.  
 Staneslow, J. S., B.A., Cornell, '22, Cornell, '26, Waterbury.  
 Starr, R. M., B.S., Mich. State, '17, Yale, '26, New London.  
 Starr, R. S., B.A., Trinity, '97; M.A., Trinity, '00, P. & S., N. Y., '01, Hartford.  
 Starrett, J. E., B.S., Univ. N. H., '26, Tufts, '30, Stamford.  
 Staub, J. H., L. I. Coll. Hosp., '99, Stamford.  
 Stein, A., Univ. Md., '17, Thompsonville.  
 Steincrohn, P. J., Univ. Md., '23, Hartford.  
 Steiner, W. R., B.A., Yale, '92; M.A., Yale, '95; L.H.D., Trinity, '31, Johns Hopkins, '98, Hartford.  
 Stempa, H., Berlin U., '98, Hartford.  
 Stephenson, C. W., Harvard, '22, Hartford.  
 Stetson, H. W., Univ. Vt., '06, Milford.  
 Stettbacher, H. J., B.S., Bates, '17, Harvard, '22, Waterbury.  
 Steudel, H., Univ. Kiel, '89, Ansonia.

- Stevens, H. G., Maryland, '04, New Milford.  
 Stevens, M. A., Yale, '29, New Haven.  
 Stevenson, W. R., Boston U., '31, Bristol.  
 Stewart, H. E., Yale, '10, New Haven.  
 Stewart, L. Q., B.S., Middlebury, '26, Yale, '33, West Hartford.  
 Stietzel, E. E., B.S., Yale, '30, Columbia, '34, South Norwalk.  
 St. John, L. A., Fordham, '20, Hartford.  
 Stockwell, W. M., Univ. Pa., '04, Hartford.  
 Stolzeise, R. M., A.B., Willemette, '26, Univ. Oregon, '34, Hartford.  
 Stone, E. L., B.A., Williams, '16, Johns Hopkins, '20, New Haven.  
 Stone, H. R., Wesleyan, '99, Johns Hopkins, '04, Clinton.  
 Stone, M. J., B.S., Chicago, Rush, '22, Stamford.  
 Stone, W. S., P. & S., N. Y., '91, Norwalk.  
 Storms, W. F., Ph.B., Brown, '26, Harvard, '30, Wethersfield.  
 Storrs, E. R., Jefferson, '00, Hartford.  
 Storrs, R. W., B.S., Trinity, '17, Harvard, '20, Hartford.  
 Stoughton, D. H., McGill, '18, Hartford.  
 Stratton, E. A., U. City N. Y., '83, Danbury.  
 Strauss, M. J., B.S., Yale, '14, P. & S., N. Y., '17, New Haven.  
 Strayer, E. M., A.B., B.D., Baylor, '24, Columbia, '33, Stratford.  
 Strayer, L. M., Jr., B.A., Princeton, '26, Harvard, '30, Stratford.  
 Streit, G., Yale, '01, New Haven.  
 Stretch, J. E., Geo. Wash., '28, Simsbury.  
 Strickland, H., McGill, '30, Meriden.  
 Stringfield, O. L., B.S., Wake Forest Coll., N. C., Univ. & Bellevue, '16, Stamford.  
 Strobel, J. E., Temple, '09, Greenwich.  
 Sullivan, A. J., B.S., Catholic U., '22, Harvard, '27, New Haven.  
 Sullivan, D., N. Y. U., '97, New London.  
 Sullivan, J. F., B.A., Yale, '90, P. & S., N. Y., '94, New Haven.  
 Sullivan, T. J., B.A., Yale, '15, Yale, '17, New Haven.  
 Sunderland, P. U., N. Y. Homeo., '94, Danbury.  
 Sunderland, W. A., M.E., Lehigh, Yale, '26, Danbury.  
 Sundquist, A. B., Tufts, '29, Tufts, '33, Manchester.  
 Suplicki, J. W., Tufts, '26, Norwich.  
 Sussler, D., Fordham, '16, Taftville.  
 Sutherland, F. A., B.A., W. & L., '22, Harvard, '26, Torrington.  
 Swain, H. L., Yale, '84, New Haven.  
 Swan, H. C., Tufts, '03, Hartford.  
 Sweet, A. N., Univ. Md., '18, Middletown.  
 Sweet, G. C., P. & S., Balt., '12, New Haven.  
 Sweet, J. H. T., Jr., Tufts, '12, Hartford.  
 Swenson, A. C., Yale, '02, Waterbury.  
 Swett, P. P., Univ. & Bellevue, '04, Hartford.  
 Sword, B. C., N. Y. Homeo., '18, New Haven.  
 Tait, A. A., Carthage, '24, Univ. Ill., '27, Univ. Penn., '36, Univ. Ill., '30, West Hartford.  
 Talbot, H. P., Univ. Md., '27, Hartford.  
 Tanner, M. J., Tufts, '18, New Haven.  
 Tanner, W. A., Univ. Vt., '12, Danielson.  
 Tate, W. J., B.A., Trinity, '25, Yale, '29, Deep River.  
 Taylor, A., Rush, '29, East Hartford.  
 Taylor, C. C., B.A., Dartmouth, Harvard, '16, Bridgeport.  
 Taylor, J. C., Univ. Mich., '91, New London.  
 Taylor, M. W., Tufts, '05, Hartford.  
 Taylor, R. M., B.A., Geo. Wash., '19, Geo. Wash., '22, East Haven.  
 Taylor, R. N., Yale, '30, New London.  
 Taylor, S. P., Geo. Wash., '16, North Haven.  
 Teele, J. E., B.A., Tabor, '85, Wom. Med., Pa., '88, Greens Farms (New Haven Co.).  
 Terhune, W. B., Tulane, '15, New Canaan.  
 TerKuile, R. C., U. of Roch., '32, Bridgeport.  
 Teuscher, W. P., A.B., Univ. Miami, Tufts, '32, Westport.  
 Thalberg, R. E., B.S., Yale, '23, Yale, '26, Southington.  
 Thayer, R. B., B.S., Bowdoin, '17, Bowdoin, '20, Somers.  
 Thenebe, C. L., Univ. Pa., '18, Hartford.  
 Thomas, J. J., Fordham, '21, Ansonia.  
 Thompson, C. G., N. Y. Homeo., '18, Norwich.  
 Thompson, H. G., B.A., Yale, '13, Harvard, '17, Hartford.  
 Thompson, K. W., A.B., Leland Stanford, Jr., '26, Harvard, '29, New Haven.  
 Thompson, L. E., Boston U., '25, Waterford.  
 Thompson, L. J., Univ. Mo., '19, Wash. U., '19, New Haven.  
 Thompson, M. D., Ph.B., Brown, '25, P. & S., N. Y., '31, Bloomfield.  
 Thompson, S. A., B.A., Wes., '18, Cornell, '23, Greenwich.  
 Thoms, H., Yale, '10, New Haven.  
 Thomson, T. L., B.A., Princeton, '98, Hahn., Phila., '01, Torrington.  
 Throckmorton, V. J., S.B., Boston U., '30, Boston U., '33, Mystic.  
 Tileston, W., Harvard, '95, Harvard, '99, New Haven.  
 Tinkess, D. E., McGill, '25, Greenwich.  
 Todd, F. P., Boston U. (Homeo.), '89, Danielson.  
 Tokarczyk, J. J., Univ. Vt., '20, New Britain.  
 Tolk, N. R., Univ. & Bellevue, '20, Bridgeport.  
 Tolles, B. I., B.A., Yale, '01, Yale, '04, Ansonia.  
 Tomaino, F. F., B.S., Yale, '25, Yale, '29, Danbury.  
 Tombari, S. P., Boston U., '31, Norwich.  
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\*Drake, Tisdale, Brown, Canadian Medical Association Journal, 31, 368-376, 1934.

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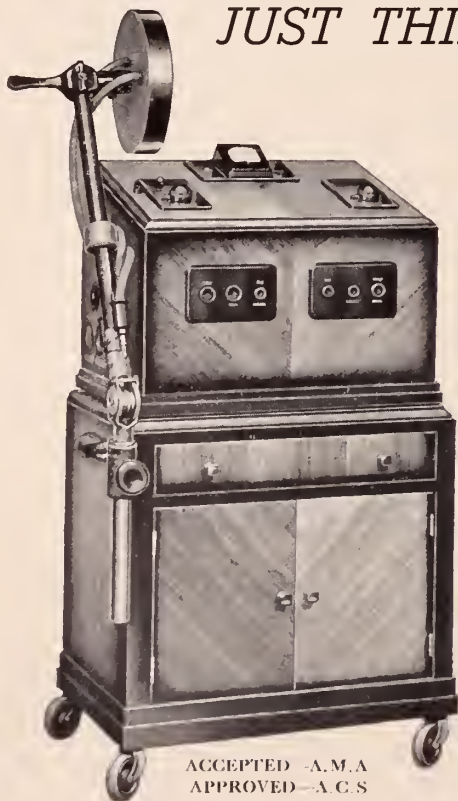
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Owned and Published Monthly by  
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Editor-in-Chief - STANLEY B. WELD, M.D.,  
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## Are the Neuritic Symptoms of Pregnancy *due to a deficiency* *of vitamins B<sub>1</sub> and G?*

**S**UCH common neuritic symptoms of pregnancy as pains in arms and legs, muscle weakness, and (less frequent but more serious) paralysis of the extremities may result from a shortage of antineuritic vitamins, recent investigations appear to show. Although neuronitis of pregnancy has long been considered a toxemia, no toxins have ever been identified.

Clinical observations of Strauss and McDonald lead to the conclusion that the condition is a dietary deficiency disorder similar to beriberi, caused by lack of vitamin B<sub>1</sub>, complicated by symptoms which may be traced to shortage of vitamin G. They report recovery in their cases receiving this therapy, including dried brewers' yeast.

### ***Hyperemesis as Cause of Avitaminosis***

Wechsler observes that all cases of polyneuritis of pregnancy recorded in the literature were preceded by long periods of severe vomiting. "It would seem," he adds, "that because of actual starvation these patients suffered from avitaminosis and consequent neuritis," a view likewise held by Hirst, Luikart, and Gustafson. Plass and Mengert observe that the practice of giving high carbohydrate feedings for hyperemesis gravidarum is still more likely to cause avitaminoses B and G.

Dried brewers' yeast, as it is far richer than any other food in vitamins B<sub>1</sub> and G, is being used with benefit both in the prevention and treatment of polyneuritic symptoms of pregnancy. Lewy found that additions of yeast to the diet reduced electric irritability of the peripheral nerves and brought clinical improvement. Vorhaus states that he and his associates, after administering large amounts of vitamin B<sub>1</sub> to 250 patients having various types of neuritis, including that of pregnancy, observed in about 90% of cases "varying degrees of improvement, i.e., from partial relief of pain to complete disappearance of all symptoms."

### ***Need for Vitamins B and G in Lactation***

Evans and Burr, Hartwell, Sure and co-workers, and Macy *et al* are among numerous authorities who find that the nursing mother also needs supplements of vitamins B<sub>1</sub> and G, from 3 to 5 times the normal requirement. Tarr and McNeile report that the physical, mental, and emotional status of 120 pregnant and lactating women receiving Mead's Brewers Yeast and other foods high in vitamin B was superior to that of a control group of 116 women.



Since the management of polyneuritis of pregnancy is difficult at best, it would appear logical to supply those dietary substances which may safeguard against it. One of the richest and most convenient sources of the anti-neuritic factors, vitamins B<sub>1</sub> and G, is Mead's Brewers Yeast Tablets. Consisting of nonviable yeast, they offer not less than 25 International vitamin B<sub>1</sub> units and 42 Sherman vitamin G units per gram.

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# JOURNAL of The Connecticut State Medical Society

VOL. II.

SEPTEMBER, 1938

No. 9

## Submarine Escape Training\*

A. S. CHRISMAN, Lieut. M. C.  
U. S. Navy, New London, Conn.

The nature of the duty aboard submarines is such that the physical requirements have had to be much more stringent than for the Navy as a whole. To begin with, this is a relatively young man's game. Every officer and enlisted man must first pass a rigid physical examination before he is acceptable to the submarine service. Long hours of arduous duty in such a confined space as a submerged submarine require the best physical fitness possible. Each man must have 20/20 vision in each eye without glasses and 15/15 hearing in each ear as much of the success and safety of the submarine is dependent upon the operation of the periscopes and sound appliances. The color vision must be normal. He must be free of any acute or chronic disease of the nose, throat, ears, respiratory, cardio-vascular, gastro-intestinal and genito-urinary systems. The blood pressure must not be over 150 systolic and 90 diastolic. Any form of venereal disease, whether active or known to be latent, will exclude. Offensive breath if persistent and abnormally excessive or offensive perspiration are sufficient to exclude because of the cramped quarters of submarines. Obesity or chronic skin disease will also exclude a man from submarine duty.

All candidates must be able to effectively clear the ears and to otherwise withstand 50 pounds to the square inch air pressure in the recompression chamber. This requirement must be satisfied in order that the personnel shall be qualified for training with the "Submarine Escape Lung". Men with sinus trouble, chronic ear disease or non-patent Eustachian tubes are usually eliminated at this stage, having to come out of the

recompression chamber before the first atmosphere, or about 15 pounds, is reached. Should the man not be able to withstand the pressure after repeated attempts at several day intervals, he is barred from submarine duty.

All officers and men assigned to listening duties are tested by the audiometer. The only permissible variation from the normal will be in the wave lengths of 128c and 4096c double frequencies. Any history or evidence of psychoneurosis or excitable temperament will exclude the candidate for submarine training.

Both the officer and enlisted candidates are given a course of instruction in the Submarine School at the Submarine Base in New London. This is the only submarine school now operating in the Navy. The officer's course is about six months and the enlisted course about six weeks. Included in this course of training is instruction in the use of the submarine escape "lung" for escaping from a disabled submarine on the bottom of the ocean. For this purpose, a special training tank has been built at the Submarine Base here in New London.

The training tank is a structure about 130 feet in height and 18 feet in diameter. It is filled with fresh water that is constantly chlorinated, filtered, heated and circulated. Escape locks are located at points 18, 50 and 100 feet from the top. A cylinder at the bottom of the tank represents a submarine compartment with standard door for entering and a standard hatch for escaping. At the top of the tank, a diving bell is suspended by a wire cable. The bell is operated by an electric motor so that it can be raised or lowered in the water. Its capacity is three men.

\*Read at the Annual Meeting, Connecticut State Medical Society, Groton, June 1-2, 1938.

Normally two men and an instructor go down in the bell to practice escapes before entering a lock.

After passing the pressure test, the student is given a lecture on the use of the lung, in which its mechanism is explained, the dangers involved in its use are discussed and he is told how these can be avoided. He is then taken to the top of the tank and learns the use of the "lung" by practicing on the ladders which extend about 15 feet into the water from the top of the tank. When he has done this to the satisfaction of the instructors, he is taken down to a depth of about 10 feet in the diving bell and escapes up a line to the surface.



THE TRAINING TANK

After completing this, he is taken down into the 18 foot lock and escapes up a line to the surface, making one stop for 10 breaths on the way. This stop is to familiarize the student still further with breathing under water and lessen the chances of him holding his breath while ascending, this being one of the chief dangers in the use of the escape "lung", as we shall see later on. After making two such escapes successfully, he is adjudged ready for the next depth, which is 50 feet. Two 50 foot escapes are next made, in which he makes 3 stops

— first at 30 feet, next at 20 feet and then at 10 feet, taking 10 normal breaths at each stop. As pointed out previously, these stops are not for decompression but for practice in breathing under water. When ready for the 100 foot escape, he goes into the 100 foot compartment and escapes up a line to the surface, making stops at 50, 40, 30, 20 and 10 feet from the surface, taking 10 breaths at each stop. After making one such escape from the 100 foot compartment, he then makes another escape without stopping to breathe but coming directly to the surface at about the rate of 50 feet per minute. The 50 and 100 foot escapes are entirely optional but practically always eagerly volunteered for.

The submarine escape "lung" is a bellows-type, collapsible, rubberized cloth bag, 9½ inches in width and 12 inches long with a capacity of 5.5 liters. It is filled with oxygen, when in use, and contains a cannister of soda lime for removing the carbon dioxide from the exhaled air. The exhaled gas passes through the exhaust valve and metal arm directly into the bag and the inhaled gas is drawn through the soda lime cannister inside the bag and immediately below the intake valve. A manually controlled master valve is provided adjacent to the mouthpiece which completely cuts off the flow of gas at the top of the escape "lung" to allow filling of the bag with oxygen. The bag is fastened across the chest and the subject breathes in and out of it through a rubber mouthpiece such as is used with metabolism apparatus. A nose clip is worn to prevent nasal breathing. At the bottom of the escape lung is a rubber flutter valve that allows the expanding air to escape when the pressure is reduced as the wearer approaches the surface of the water. The volume of the bag is such that a wearer can use it continuously for about 30 minutes before the carbon dioxide concentration reaches toxic proportions without recharging. Each submarine has two escape "lungs" for each man aboard — one-half in the forward compartment and the other half in the after compartment in case all of the crew should ever be trapped in either end of the submarine. Each "lung" is equipped with a charging valve similar to the charging valve on the tube of an automobile tire. Each submarine compartment has oxygen flasks and charging hose for this purpose.

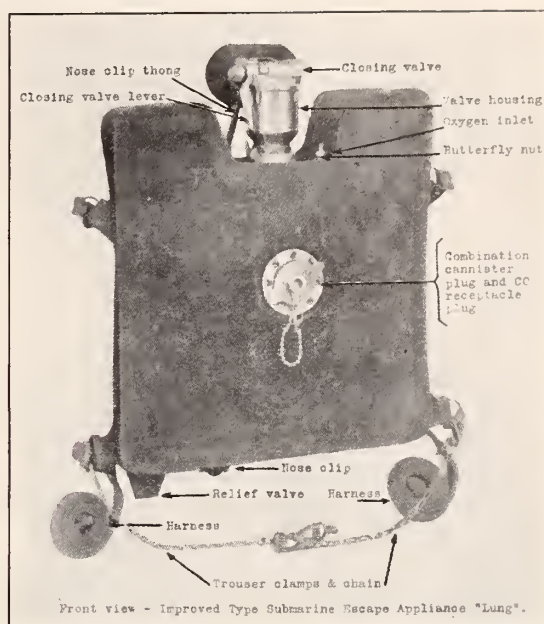
The method of escape from a sunken submarine may be briefly outlined as follows: (1) the "lungs" are distributed individually and



tested to see that they are in proper working condition; (2) the hatch skirt is then placed in position under the escape hatch so that an air pocket may be maintained in the compartment when it is flooded. This enables the men to walk around in water up to their shoulders and still breathe in the air pocket; until they put on their escape lungs and leave the submarine; (3) the hatch is unfastened so that it will spring open when the external and internal pressures become equal; (4) flooding the compartment with sea water is now started and continued as rapidly as possible until the internal pressure equals the weight of water over the hatch, at which time the hatch opens and water pours in and air escapes until the level of the water in the compartment reaches the lower edge of the skirt, air above the water level in the compartment thus being trapped. (5) a buoy carrying a line is released and when it reaches the surface, the end of the line in the submarine is secured. The "lung" is now charged with oxygen, the individual ducks under the edge of the skirt and grasping the line slides slowly up through the hatch to the surface. Upon reaching the surface, he closes the master valve before taking the mouthpiece out of his mouth and this keeps the "lung" inflated. It now acts as a life preserver if need be. It is contemplated that a submarine salvage vessel will be at hand, whenever possible, to rescue survivors following the escape.

In the early use of the escape lung, certain accidents were encountered, the etiology of which was not apparent at first. Much of the difficulty arises from the great buoyancy of the inflated bag. This causes a man, when he has lost hold of the line, to rise so rapidly as to emerge above the surface of the water to a point below the nipple line. During such a rapid ascent, the breathing is not adequate to equalize the air pressure in the lungs and the surrounding water pressure outside and due to the excitement there is a tendency to hold the breath. Consequently, the intrapulmonary pressure set up by sudden ascent from any depth may be great enough to over-distend the individual's lungs.

With few exceptions, the entire group of accidents occurred from depths of less than 30 feet with short exposures. From this it appeared that caisson disease was not a factor. In fact, standard diving tables of the Navy do not prescribe decompression even for 42 feet if the exposure time does not exceed three hours.



All of the cases gave histories containing certain important common characteristics; namely, excessively rapid ascent under conditions preventing proper equalization of intrapulmonic pressure to the fall in external pressure and an interval after reaching the surface before symptoms occurred. On reaching the surface the men appeared at first quite normal and carried on a conversation. The first symptoms appeared rapidly from one to several minutes later. The usual symptoms were abdominal cramps, dyspnea, muscle cramps, headache, ocular pain, collapse and unconsciousness.

At the time of these first accidents, an attempt was made to explain them on the basis of the Valsalva phenomenon. Valsalva in 1700 found that he could produce dizziness or even loss of consciousness by pressure, made with the abdominal muscles at the height of deep inspiration with the respiratory passages closed. During defecation these conditions may be closely approximated in our everyday life. General expiratory effort with the air passages closed, at the height of inspiration, increases the symptoms. Many persons are familiar with this experiment performed in the following way: the subject takes a deep inspiration and closes his respiratory passages; sudden pressure is made on the chest wall by another person (best performed by the second person standing behind with the arms locked about the chest of the subject), with the result that the subject loses consciousness.

The effect in such cases is to raise the pressure in the bronchi and alveoli. This increased alveolar pressure sends the blood forcibly from the left heart into the general circulation. There can not be a corresponding increased flow of blood to the right heart because the increased intrathoracic pressure has restricted the lumen of the venous trunks. The pressure is also exerted on the heart wall so that there results a withdrawal of the blood from the heart.

The greatest expiratory pressure increase with the glottis open is brought about by blowing against resistance. This increase may reach 300 mm. of mercury (over  $\frac{1}{3}$  of an atmosphere). If pressures up to 300 mm. of mercury can be reached with the glottis open, certainly much higher pressures may be obtained with the glottis closed.

As training with escape apparatus continued, more accidents occurred, three of which were fatal. They all presented the same symptomatology as already outlined. With caisson disease being ruled out, it was not felt that these fatal cases had been adequately explained. Consequently, in 1931, Drs. Adams and Polak of the Navy Medical Corps, set about on some experiments at the Harvard School of Public Health to attempt to find out exactly the underlying pathological physiology in the cases.

In considering the pathological physiology of the accidents, it was first thought that the increased intrapulmonic air pressure, inevitably present when one makes a quick ascent with the air passages closed, shut off the pulmonary capillaries and thus placed a load on the right ventricle which caused acute failure. In this direction Chillingworth and Hopkins, employing dogs, found that with an increase in the intrapulmonic pressure the systemic arterial blood pressure dropped markedly to a few millimeters above zero, while the venous pressure rose markedly and the carotid pulsations ceased, although the heart continued to beat, indicating a mechanical block of the circulation in the vessels of the lung, due to the occlusion of the pulmonary capillaries. The failure of the carotid pulsations was due to the lack of blood supply to the left ventricle, caused by the pressure exerted directly on the small pulmonary vessels.

These same authors, working further, reported that the pulmonary artery pressure equalled that of the systemic blood pressure when there was

an excess intrapulmonic pressure of 50 mm. of mercury. If the intrapulmonic pressure exceeded this, the pulmonary artery pressure often exceeded that of the systemic blood pressure and influenced the coronary circulation unfavorably with possible disaster to the heart.

Adams and Polak, in their experiments, used dogs averaging 18 kg. in weight. The anesthetic used was Nembutal, given intraperitoneally, in dosage of 40 mg. per kg. dissolved in 20 c.c. of normal salt solution. A tracheotomy was performed and a Y cannula tied in place. One arm of this cannula was connected to a compressed air line and the degree of pressure was regulated by a lateral exhaust tube with a clamp. This exhaust tube was connected with a 20-liter reservoir which was connected to the air line. This reservoir was used to maintain a steady pressure. A mercury manometer was connected to the air line. A second connection to the air line was made to a recording mercury manometer on a drum. Distention of the lungs was accomplished by stopping the free arm of the Y cannula and the pressure built up and held at the required degree for a given time when it was released by removing the stopper. A femoral cannula was inserted in one femoral artery and connected to a recording mercury manometer on the drum. A cannula was inserted in the left internal jugular and connected with a water manometer, which in turn was connected to a tambour with a recording needle on a drum.

The systemic pressure before lung distention was 156 mm. of mercury. The intrapulmonic pressure was raised to 80 mm. of mercury and held for 10 seconds. The record shows an intrapulmonic pressure of 100 mm. of mercury but a correction of 20 mm. must be made for the thrust of the needle when the pressure is turned on suddenly. However, the true pressure was 80 mm. as shown by the plateau on the record. On increasing the pressure in the trachea the systemic blood pressure fell immediately to 28 mm. of mercury. The venous pressure rose to 120 mm. of water. With the release of the intratracheal pressure the systemic blood pressure gradually rose to 128 mm. of mercury within one minute. This showed that there was a blocking of the circulation in the lungs, sufficient to cause a marked fall in the systemic blood pressure, and with this there was an instant and corresponding rise in the venous pressure.

This experiment of Adams and Polak and others of the same type showed that the human accidents which had occurred can not be explained by failure of the right ventricle incident upon high pulmonary pressure. The right ventricle received very little blood during the period of increased intrapulmonary air pressure, owing to the fact that the veins entering the heart are occluded when the pressure is raised. This is shown in the rise of venous pressure. A pump which receives nothing to eject will not build up a disastrous pressure. In the case of the heart, if inflow to the right was shut off for



some minutes, the heart would fail through asphyxia, but in the human accidents seconds only have been involved. It therefore becomes necessary to look for another explanation, and a wholly satisfactory solution was provided by means of a second group of experiments.

In 1931 Joannides reported that when the intrapulmonic pressure is great enough to greatly expand the lungs (60 - 100 mm. of mercury) emphysema, pneumothorax, pneumoperitoneum, and air embolism invariably result.

The same apparatus was used as in the first experiments, with the addition of a modified Van Allen carotid cannula. This cannula was inserted in the common carotid artery and was filled with normal salt solution. The cannula acted as a trap if bubbles of air passed into the left ventricle and were expelled into the aorta. During the entire experiment blood circulated steadily through it and air was trapped in the long arm if bubbles came with the carotid flow. In order to prevent coagulation and blockage of blood flowing through the trap the animal was thoroughly heparinized (20 mg. per kg. of body weight intravenously).

The systemic blood pressure reading was 144 mm. of mercury before the intrapulmonic pressure was increased. The intrapulmonic pressure was then raised to 60 mm. of mercury and there immediately resulted a typical fall in the systemic blood pressure with a rise in the venous pressure. The intrapulmonic pressure was maintained for 10 seconds and suddenly released. With this release of the intrapulmonic pressure the arterial pressure began to rise and was back to normal in about three minutes. No bubbles appeared in the carotid trap. It was assumed that little or no air embolism had occurred and the animal was obviously in good condition. The intrapulmonic pressure was then increased to 80 mm. of mercury. The typical fall in systemic blood pressure and increase in the venous pressure occurred. The pressure was maintained for 10 seconds and released. Shortly after the release of pressure numerous bubbles appeared in the carotid trap. The systemic blood pressure rose to 90 mm. of mercury in four minutes. The intrapulmonic pressure was then raised to 100 mm. of mercury and held for 10 seconds and suddenly released. Shortly after this numerous bubbles appeared in the carotid trap and the animal failed to breathe, but the heart continued to beat for about two minutes.

Autopsy upon this animal revealed an extensive interstitial emphysema throughout the mediastinum, extending from the neck to the diaphragm, but more evident about the posterior surfaces of the hilus vessels of the lungs. Dissection of the lung substance showed that the emphysema about the blood vessels extended to the periphery. Hemorrhagic areas were found in the areolar tissue about these vessels and extending into the lung substance. There were also hemorrhagic areas on the lung surfaces, especially of the lower lobes. Microscopic study of sections of such lungs revealed very uniform types of damage. Dissection of the bronchial tree revealed hemorrhagic areas surrounding these structures. Dissection of the

lymphatics and thoracic duct showed no air in these structures. Air emboli were found in the coronary, mesenteric, and surface vessels of the brain. Aspiration of the heart showed air in both ventricles. In a similar experiment the vessels of the heart were ligated, the heart removed and placed under water. An inverted glass funnel filled with water was placed over the immersed heart, which was then opened and 77 c.c. of air collected from the chambers.

In numerous experiments, Adams and Polak were able to demonstrate that intratracheal air pressures of more than 90 mm. of mercury immediately produced traumatic air embolism with resultant serious injury — injury of such a degree that recovery occurred slowly or not at all. When the air pressure was 80 mm. of mercury or less, the systemic blood pressure returned to normal, and the animals, if injured at all, were never in a serious condition.

Apparently the production of air embolism is explained in the following manner: With an intrapulmonic pressure of 80 mm. of mercury or more there is a stretching and tearing of many alveolar walls and the contained capillaries. Air is forced into these vessels and their supporting tissues while the pressure is maintained. The amount of air passing into the vessels and the interstitial tissues depends upon the degree of the intrapulmonic pressure attained and the length of time this pressure is maintained.

Joannides stated that air reached the heart through the pulmonary vessels after the release of increased intrapulmonic pressure where it was broken up into fine bubbles, and may have caused death by anoxemia and asphyxiation. Some of the air passed through the heart into the general circulation, where it was seen as air bubbles in the vessels and reached vital areas with the resulting hemiplegia, shock, unconsciousness, and death.

It is believed that the short time it takes for the air emboli to travel from the heart to a vital area accounts for the period of no symptoms between reaching the surface and the appearance of disaster as found in all of the accidents with the escape "lung" to which I have referred. The character and severity of the symptoms depend on the vital area affected.

In the experiments just described air embolism was produced by increasing the intrapulmonic pressure with corresponding distention of the chest. The questions then asked were: Is it the increased pressure alone, or the increased pressure plus the lung distention, which is responsible

for the formation of air emboli? If it is the pressure alone, why do not more people develop air embolism? The pressure necessary to cause the air to pass out of the lung into the capillaries is not great and can be produced with moderate expiratory effort by voluntary contraction of the respiratory muscles while the breath is held, as, for example, coughing, or blowing a wind instrument.

In perusing the literature it was found that air embolism is more frequent than commonly supposed, but if air embolism is not massive it can be borne by the body, provided lodgment in a vital area is escaped.

Further experiments were undertaken by Adams and Polak to clarify the above questions. The apparatus used was the same as that in the preceding experiment, plus a firm bandage applied to the animal's chest and abdomen, just tight enough to splint the chest at deep inspiration. The abdominal bandage was applied to prevent the distention of the lungs by the increased intrapulmonic pressure.

The intrapulmonic pressure was increased to 80 mm. of mercury and held for 10 seconds. No bubbles appeared in the carotid cannula after the pressure was released. After a short interval, the bandage was removed, leaving the chest free to expand, and the intrapulmonic pressure again raised to 80 mm. of mercury. With the release of this pressure bubbles appeared in the carotid trap.

From the above it will be seen that the increased intrapulmonic pressure which has always produced air embolism in an animal will fail to do this if the chest is bandaged to prevent abnormal distention of the lungs. From this fact it is certain that the increased intrapulmonic pressure is not alone responsible for the production of air embolism, but the increased pressure plus the degree of distention of the chest beyond the physiological inspiratory limits are the combined factors concerned. This explains why it is possible for a man to make an expiratory effort which raises the intrapulmonic pressure to 100 mm. of mercury or more without developing symptoms of air embolism, for in this case the high pressure is caused by compression of the lung volume rather than by distention. The same applies to a man diving down to extreme depths from normal atmospheric pressure during ordinary swimming activities — the increased

intrapulmonic pressure being caused by compression of the lungs in contradistinction to a man coming up from the same depth with an escape "lung", in this case the air in the lungs being compressed equal to the pressure for the depth from which he starts and expanding as the man nears the surface and thus causing distention of the lungs if the excess volume of air is not exhausted.

As shown above, air embolism is the condition which has to be prevented and, when it occurs, treated. As also shown previously, small air emboli can be tolerated by the body and may account for the milder symptoms which have occurred in most of the reported cases. The severe and fatal cases were, no doubt, due to massive air emboli lodging in the vital areas, especially the respiratory center or coronary circulation. In this relation it should be remembered that in all the cases reported the embolism occurred with individuals in the head-up position, which is conducive to the emboli reaching the brain.

In attempting to find adequate methods of treating these cases, Adams and Polak found that recompression was the only effective means of aiding recovery. The animal experiments were carried on in a recompression chamber and as soon as the animal was in distress from the air emboli produced, the pressure was rapidly raised until the symptoms relieved. Decompression was then slow and by the stage method. When signs or symptoms recurred the pressure was again increased and decompression again carried out. The result obtained by recompression is purely mechanical. The maneuver causes a diminution in the size of the bubbles, thus lessening the obstruction to blood flow in the vital areas and decreasing anoxemia. It also aids in hastening the elimination of air by absorption in the blood and excretion through the lungs. In cases of respiratory failure artificial respiration with oxygen and carbon dioxide should be instituted immediately and continued while recompression is taking place.

Since the results of these experiments were published I have personally treated one severe case of air embolism following an escape from 100 feet with the escape "lung" by recompression. The man was apparently doing all right until he reached a point about 30 feet from the surface when the mouthpiece of the escape



"lung" was accidentally knocked out of his mouth. He became very excited, held his breath and let go of the line and rapidly shot to the surface. He was apparently all right, climbed out of the water and started to walk away. He then began to stagger, fell to the floor, became very cyanotic and was apparently having a great deal of difficulty in breathing. His respirations ceased entirely by the time I reached him. He was immediately taken into the recompression chamber and artificial respiration started. The pressure was built up as quickly as possible. By the time 45 pounds pressure was reached he had begun to breathe irregularly and soon was breathing regularly. At about 60 pounds pressure he began to groan and move about. He regained consciousness at around 70 pounds, and complained of pain in one ear and in his chest. The pressure was increased until 80 pounds was reached. Examination revealed a hemorrhagic ear drum, which was probably due to failure to equalize the pressure while unconscious, and rales throughout the lungs. The chest was firmly strapped over the lower portion with some relief. The pressure was reduced rapidly to 60 pounds. From 60 to 45 pounds it was reduced at the rate of a pound a minute. From 45 to 30 pounds it was reduced at the rate of a pound every three minutes and from 30 to 15 pounds at the rate of a pound every five minutes. From 15 pounds to zero gauge or atmospheric pressure it was reduced at the rate of a pound every ten minutes. Thus, the total decompression time was about five hours. He was kept in the chamber at atmospheric pressure for the next 24 hours in case there should be a recurrence of symptoms. Recovery was complete and there were no remaining symptoms except pain on deep inspiration for a period of about two weeks, during which time the chest was kept strapped and the patient in bed with supportive treatment.

As a result of the foregoing experiments the following measures are now taken to prevent such accidents during the training of men with the use of the escape "lung". All men must be thoroughly familiar with the problem of breathing while wearing the escape "lung" under water prior to an escape. It is emphasized that continuous and rapid breathing must go on during an ascent. They are told many times that in case anything goes wrong with the lung or they

lose the mouthpiece to continue on to the surface, not to hold the breath but to exhale as they ascend. Since the air in their own lungs is under pressure while they are at any depth, the air is compressed as they rise and they are able to expel more and more and thus not stretch the lungs. There is a flutter valve on each escape "lung" which when working properly automatically expels the excessive air and as long as the wearer keeps breathing during the ascent prevents embolism. Since these measures have been adopted in the training, there have not been any accidents with the use of the escape "lung."

In addition to air embolism, which is the chief danger involved in the use of the escape "lung", there are certain others that would be encountered in actual escapes from a sunken submarine at any great depth. Chief among these is caisson disease. The time allowable under pressure at great depths without proper decompression is, of course, inadequate to flood a submarine compartment and assure the exit of all of the crew. Much discussion has centered around the method of decompression of men escaping from a sunken submarine. This has not been a problem in training because of the controlled conditions and no depths over 100 feet being used. At first, it was thought advisable to have numbered markers attached to the ascending line, requiring a certain number of breaths to be taken at each such stop. But this plan slows to such an extent the escape that the men left behind have a much longer exposure and thus it was abandoned in favor of continuous ascent at the rate of about 50 feet per minute. Even this continuous ascent will not give all of the personnel an equal chance, for at least one minute is required to properly check each man and start him up the line, and proper ascent from a depth of 100 feet would require about two minutes.

From actual experiments at the Experimental Diving unit in the Navy Yard at Washington, it has been shown that it is apparently safe to remain at 100 feet for 37 minutes, at 150 feet for 18 minutes, at 185 feet for 14 minutes and at 200 feet for 13 minutes, and then come to the surface by continuous ascent without decompression. These are the maximum time limits before any case of bends, however, mild, appeared in over 2,000 such experiments. There is a great individual susceptibility to caisson disease and many of the subjects had much higher time

limits without showing any evidence of the bends.

Individual escapes have been made successfully with the escape "lung" from 300 feet and it is believed that deeper escapes can be made when there are proper facilities available at the surface for caring for those cases that develop caisson disease. In this connection, our submarines are built to withstand pressure of about four hundred feet of water safely. Greater pressure that would collapse the submarine would render the escape "lung" useless as all hands would probably be lost before attempts to escape could be made.

Another safety measure is that salvage air connections to ballast tanks and all compartments are permanently located on the deck of the submarine. This enables divers to make the proper connections easily and "blow" the submarine to the surface.

A large closed pressure bell is part of the equipment of Navy salvage ships. This rescue chamber can be lowered to the sunken submarine where contact is completed and the men may be taken out through the motor room hatch or the torpedo room hatch.

Each compartment of a submarine is supplied with a high pressure air-cock so that the compartment struck will have available all of the ship's high-pressure air to help hold the water out while repairs or plugging of the hole are attempted. Quick-closing doors are provided so as to isolate rapidly the damaged section.

Buoys are carried by the submarine which may be released from inside the ship. This buoy carries a telephone cable for communication with the surface. It would prove of material aid in the location of a sunken submarine. Signal bombs are also carried in connection with this device.

Sound devices for the detection of an approaching ship or obstruction are built in on all our submarines. For shore or for long range communication the antennae must be above the surface of the water and the wireless used.

Two types of gas masks are provided the men aboard all submarines, one chlorine gas mask and one general protective mask. Duplicates are placed at each end of the ship. Chlorine escapes only when salt water comes in contact with the batteries which can occur only in the event of an accident to the boat. No special chlorine detector is used or needed as the odor is

so characteristic that it would be noticed immediately.

A hydrogen detector is permanently located in each of the two battery compartments. It is run constantly during the charging of the batteries. It is also used under conditions of exceptionally long submergences. About 4% hydrogen in the air is considered the critical point.

A CO<sub>2</sub> detector, known as the Higgins-Mariott, is supplied to every submarine. Depending upon the size of the boat and personnel, air purification will be required after a definite period, the upper limits of CO<sub>2</sub> being set at 2%.

For over 15 years the submarine forces of our Navy operated without a serious catastrophe in great contrast to the records of other navies. Then in 1915 the loss of the F-4 during underwater maneuvering near Honolulu was caused through corrosion of the lead lining of the batteries permitting the acid to weaken rivets in the side of the ship. The sea water entered, evolving chlorine gas by reaction with the battery acid, causing an explosion which admitted more water. Twenty-one lives were lost. Rigorous inspection and adequate equipment have prevented the recurrence of this type accident, the only one of its kind recorded over a 36-year period in our submarines.

In 1925 the S-51 was rammed by the steamship CITY OF ROME off Block Island. Six officers and 27 enlisted men were drowned.

In 1927 the S-4 was rammed by the U. S. Coast Guard Cutter PAULDING off Provincetown, Mass. Four officers and 28 enlisted men were drowned at once while one officer and 5 enlisted men remained alive for several days in the torpedo room and finally died of asphyxiation as there was at that time no means of escape.

As a result of these last two accidents, in 1928 a special Navy board was appointed to study safety measures for submarines. It reviewed in the neighborhood of 5,000 suggestions. The most valuable device in the opinion of the board is the Momsen Escape Lung which is now the standard device in use on all our submarines. While our casualty record is the best of any of the nations with large submarine fleets, we hope and believe that the personnel of our submarines will be able to save themselves as a result of the

*(Concluded on Page 476)*



## Physicians and Lawyers

GEORGE H. COHEN

Editor, Connecticut Bar Journal, Hartford, Connecticut

The average physician regards the average lawyer as an individual who delights in the use of mystifying legal terms; who delays the trial of his negligence and other cases until the physician is worn out or has grown old waiting for his money, and who, worst of all, insists on having the physician diagnose his client's case and testify in a manner favorable to the client regardless of that individual's true condition. The average lawyer regards the average physician as a person from whom he cannot get a written report as to the client's condition without the help of a derrick and the Police Department; who, when he does finally write a report, seems to take particular delight in using as long and as mystifying terms as possible in describing a simple condition; who does everything in his power to avoid the use of simple English words which the lawyer, the Court or a jury might understand; who never takes a definite stand whenever possible to avoid it, because it seems usually possible to get another member of the profession to take the opposite point of view, and who finally is always in a hurry whenever he discusses the case with the lawyer and more particularly when he comes into Court.

It is probably safe to assume that these two attitudes will never be completely changed. However, it does seem worth while to try to show the basis for the lawyer's point of view — even if the conclusions are largely wrong. In other words, "Where there's smoke, there's fire," and though in this case the fire may be very slight, the existence of the smoke makes it advisable to consider the origin of the fire, however insignificant it may be.

Let it be said at the outset that unfortunately there is a small number of lawyers from whom physicians rightly draw the conclusions outlined above. However, the majority of lawyers are otherwise, and should not be judged by the very small minority.

Lawyers have long since come to the conclusion that if there is anything that a physician

dislikes more than a patient who deliberately beats him out of his fee, it is writing a report in an accident case for transmittal to a lawyer who needs it in a law-suit. In some cases this is due particularly to the fact that the physician is extremely busy saving lives and bringing people back to health. Such a person does not feel that he can or wants to spend the time necessary to dictate a report to his secretary. Moreover, if the physician has no secretary and has to write the report in long-hand, the process becomes even more painful. In other cases, the physician dislikes to become involved in any such matter because he gets no pleasure out of having to go to Court. He dislikes to wait around in the corridors until he is called to testify and finally give testimony on the stand in answer to questions asked by an attorney who frequently either asks the wrong questions or fails to ask the important ones which would make it possible for the physician to bring out all the facts in the case. In addition to this, he does not like to be subjected to cross-examination on some of the not-too-firmly-established theories in medicine. Another physician dislikes to put his conclusions in writing because he knows that the lawyer getting the report will undoubtedly present it to the other side and that it might be torn into pieces by the physician representing the opposing side. Besides, lawyers in general suspect that there are some physicians who do not know how to write a report which can be of use to counsel and that there are still others who are just too lazy to do so.

Furthermore, while of course, any lawyer realizes that the physician's report to be accurate must state the patient's condition in the usually accepted medical terms — many of which mean nothing to the lawyer — there is a common feeling among the members of the bar that physicians seem to think that in addition to using the technical terms which are absolutely essential accurately to describe a condition, they should add as many other mystifying medical terms as

possible. Above all, they seem to think they must absolutely avoid using anywhere in the report statements in plain English giving, in words and language that can be understood by a layman, a statement of the patient's condition. They apparently feel that the use of such simple language may in some way detract from their prestige.

Another cause of complaint on the part of lawyers is that frequently physicians in their reports simply give a brief statement of the patient's condition without in any way connecting the same with the accident, even where there is no question as to the causal connection between the two. They fail to express an opinion on the most vital question as to whether the patient's condition is due or is very likely due or is probably due or even is possibly due to the accident in question. Such a report is, of course, useless to the lawyer and to the client.

This brings us to the charge frequently made against members of the medical profession to the effect that they avoid taking a definite stand whenever this is possible. It is true that many theories in medicine are still in a state of flux, uncertainty, experimentation or research investigation. However, in treating the patient, the physician must take a certain stand as to what he thinks is wrong with him and as to what he thinks is the proper treatment. For the time being at least, his stand must be definite. It is true that he may be forced to shift his ground and take a new stand. Again, however, for the time being, his stand must be definite.

Furthermore, the physician is usually not called upon to make a report until after considerable time has passed and he has had an opportunity to treat the patient and to change his diagnosis and treatment if necessary. By that time, however, he should ordinarily be in a position to know quite well what his attitude in the particular case is and to express an opinion concerning the same. In other words, he is not, under ordinary circumstances, asked to do the impossible when he is called upon to decide on cause and effect and to estimate the amount of either total or partial disability or the length of time additional treatment will be necessary.

To the lawyer who will take the time and trouble to think over the matter, it should not be surprising that matters involving estimates of disability both as to the length of time and per-

centage should so frequently vary with the individual physician. After all, such things cannot be measured with a yard stick and many resolve themselves into matters of opinion. Here the question of past experience and the personal human element necessarily enters.

It must, however, be admitted, that frequently lawyers are chagrined by the fact that two apparently able physicians disagree not only on the amount and permanency of the disability, but on the very nature of the illness or disability, the type of treatment required, and, from the point of view of the lawyer most important of all, on the question as to whether the disability or injury was or could have been caused by the accident in which the patient was involved. In many such cases the lawyer is undoubtedly wrong and his chagrin is due to the fact that he has not paused to remember that in large measure, medicine is still an inexact science and that frequently physicians disagree in their diagnoses of a particular case. As far as the layman is concerned, however, he is not interested in the general status of medicine. If he is ill, he goes to a physician and expects him to know exactly what is wrong with him. If the treatment given him by the physician is successful, whether it be due to his skill or to the remedial powers of nature itself, the physician is good and knows his business. If on the other hand, the illness does not respond promptly to the treatment, the fault is that of the physician rather than of the uncertainty still prevailing in medicine with reference to the treatment of that particular ailment.

I believe that it would be helpful in cases in which two physicians disagree radically in their diagnoses, if each one in making his diagnosis would at least recognize the diagnosis of the other and, if the latter is possible, admit it, while stating that he prefers for various reasons to hold to his own diagnosis. At the present time, we find that most frequently each physician gets on the stand and merely gives his own point of view, paying little attention, if any, to that of his fellow practitioner. This makes it necessary for the examining lawyer to try by cross-examination to make the unwilling medical witness admit that there may be something to the other man's point of view. The result is that both the Court and jury is affected by the unwillingness of the witness to answer and fre-



quently pays little attention to his original testimony. Such procedure injures the medical profession in the eyes of laymen, for the entire truth about the patient's condition should be disclosed and not only that portion which is helpful to the side hiring the witness.

This situation perhaps explains why physicians are so frequently cross-examined on the stand and apparently are treated by lawyers in anything but a gentle manner. The lawyer has had his client examined by his physician and has received his report as to the diagnosis, treatment, disability and causal connection between the accident and the injury. He has placed his physician on the stand and has heard what seemed to be straightforward testimony. Thereupon, the attorney for the defense who has also had the plaintiff examined by his own physician and has in all probability gotten from him a different picture, feels that he must correct the impression given the Court and jury by the plaintiff's physician. He thereupon proceeds by cross-examination to bring this about. If the plaintiff's physician modifies his story or weakens his own testimony, he is condemned by the plaintiff's attorney and his client. If he sticks to his testimony and refuses to make any change, the defendant's attorney does all he can to discredit the plaintiff's physician, to confuse him or to show how little he knows. He does this in preparation for the testimony of the defendant's physician which will be to the contrary. When the defendant's physician has taken the stand we have a repetition of the former scene since the plaintiff's attorney now feels called upon to try by cross-examination to discredit the defendant's physician.

The result of this performance is that the jury either decides to follow the adage: "A plague upon both your houses", and draws its own conclusions, or else it chooses to believe one of the two witnesses, either because of the manner in which he testified, or because he was better able to answer back the cross-examining lawyer or because of his appearance or because of one or more of a hundred different reasons which occur to it. This cannot be said to give real justice.

All this could have been avoided in the case mentioned if the first physician after stating his own point of view, definitely and without hesitation, had proceeded to tell the jury that another point of view is possible, but, for various

reasons stated, he does not concur or does not choose to follow it. Were this done, the cross-examination would largely be limited to a discussion merely of the reasons for the disagreement and the jury could have its choice as to which of the physicians it would believe without having to take into consideration the question as to whether either one knew anything at all about medicine or about the case. The prestige of medicine and medical men would be greatly helped by such procedure.

There is, it is true, one complaint which physicians have, which is entirely justifiable from their point of view. They dislike to have to come to Court to testify because they have to wait until the case is reached and until they themselves are called to the stand to testify. As a general rule, lawyers get permission from the Courts to put physicians on the stand without regard to the proper order of the presentation of the evidence. In spite of this, however, as is well known to lawyers, they, their clients, physicians and other experts often have to wait until the preceding case which was to have taken but an hour more, has lasted another half-day. This is an evil which it is almost impossible to cure but the blame should not be laid upon the lawyers or even upon the Courts. Such situations are accidents due to human nature and will have to be accepted by physicians as one of the unpleasant tasks they must perform to help an unfortunate human being get his legal rights after he has gotten illegal injuries.

The relations between physicians and lawyers would be much improved if physicians would realize that the average lawyer, to whom an accident case is referred, is simply trying, by the use of his own legal skill and of the medical skill of the physician, to get the client-patient just compensation for his injuries. He must remember that the first element to be proven in any case is the legal liability of the defendant to the plaintiff for the injuries. For this he must use his legal skill in looking up the law, presenting the evidence properly through witnesses and arguing the case to the Court and jury. Having established the legal liability, the lawyer must next establish the extent of the injuries and damage and have the same evaluated for the benefit of the Court and jury. This second element he can usually prove only through the testimony of the physician who must, however, also be ready

to testify, where the facts justify the same, that the injuries were the result of the accident in question.

If physicians would bear this in mind, they would be more ready to furnish lawyers promptly with reports as to the condition of the injured individual. They would try to be as helpful to the lawyers personally as they can by making the reports both medically accurate and in addition, as simple as possible, so that the lawyer may know what he is about. They should remember that one of the most important elements to be included in the report is the physician's opinion as to causal connection between the accident and the injury and should set out the same as clearly as the case warrants. If there is any question about the causal connection, this should be stated so that the lawyer may know how strong or how weak is his case at the very outset, because he will govern himself accordingly. A report which merely gives a statement of the condition of the client without tying this to the original accident is of no interest or value to the lawyer because without such causal connection there is no case and nothing can be done for the client.

It is high time for the members of these two learned professions to consider each other's problems and aims, bring about a better mutual understanding and thus eventually lead to a modification of the present attitude of each profession to the other.



#### NEWLY LICENSED PHYSICIANS

The following applicants were issued certificates of licensure at the recent written examinations conducted by the Connecticut Medical Examining Board:

J. Alfred Fabro — Boston City Hospital, Boston, Mass.  
 Sidney H. Burness — 27 Andover St., Hartford.  
 John R. Lenehan — 362 Manton Ave., Providence, R. I.  
 Maurice F. Mulville — St. Francis Hospital, Hartford.  
 Edward P. White — St. Francis Hospital, Hartford.  
 Andrew J. Panettieri — 131 Marion St., Bridgeport.  
 Rudolf Blau — 700 West 180th St., N. Y. C.  
 Samuel A. Jaffe — 18 Broadway, Colchester.  
 Samuel M. Dreher — 515 Jericho Road, Abington, Pa.

William F. Stankard — 14 Cold Spring Road, Stamford.  
 Edward W. Oxnard — 11 Church St., Marlboro, Mass.  
 Joseph J. Pagliaro — 239 Housatonic Ave., Derby.  
 Edward E. Vivirski — 325 Pearl St., Bridgeport.  
 William Bria — 180 West Ave., Stamford.  
 Charles A. Tucker — 105 Huntington St., Hartford.  
 Jacob Meskhem — 146 Buena Vista Road, Bridgeport.  
 Robert A. Bonner, Jr., — 92 Euclid Ave., Waterbury.  
 Wesley Fitzpatrick — 73 Mather St., Hamden.  
 Gordon H. Hutton — 90 Vernon St., Hartford.  
 William L. Wallbank — 120 Carlton St., New Britain.  
 William J. Lenkowski — 207 South Elm St., Waterbury.  
 William Pola — 324 Elm St., New Britain.  
 A. Burton Anderson — 50 Colony Road, West Hartford.  
 Thomas J. Mirabile — 51 Garden St., Thompsonville.  
 John E. Harty — 14 Prospect St., Danbury.  
 Charles K. Skreczko — 94 Wooster St., Shelton.  
 William D. Troy — 3 St. George Ave., Stamford.  
 Elliott R. Mayo — 103 Griggs St., Waterbury.  
 Siegmund Pelz — Masonic Home, Wallingford.  
 Mario G. Conte — 171 Wolcott St., New Haven.  
 Donald M. F. Biehn — Reef Road, Fairfield.

The following applicants at the oral examination on July 26 were issued certificates of licensure:

Edward L. Brennan — 74 Webster St., Hartford.  
 Norton S. Brown — 16 East 90th St., N. Y. C.  
 Burr H. Curtis — 312 36th St., Union City, N. J.  
 Abraham M. Cutler — 755 Ocean Ave., Brooklyn, N. Y.  
 Ralph H. Edson — 20 Godfrey Road, Upper Montclair, N. J.  
 George J. Epstein — 31 Dwight St., New Haven.  
 Archibald M. Gaulocher — Dover Plains, N. Y.  
 Francis Giuffrida — 36 Washington St., Middletown.  
 Milton S. Godfried — 90 Norton St., New Haven.  
 Wilbur D. Johnston — 215 Whitney Ave., New Haven.  
 Gilbert E. Moore — 376 Sound Beach Ave., Old Greenwich.  
 Roger B. Nelson — 36 Irving St., Waterbury.  
 David F. O'Keefe — 94 Ardmore Road, West Hartford.  
 Paul E. Rekers — New Haven Hosp., New Haven.  
 John J. Scanlon — 394 West Ave., Norwalk.  
 John C. Shull — 20 South Hudson St., Hartford.  
 John P. Simses — 881 Lafayette St., Bridgeport.  
 Wilson F. Smith — 251 So. Marshall St., Hartford.  
 William B. Swarts — N. Y. Post Graduate Med. School, N. Y. C.  
 George L. Wadsworth — State Hospital, Middletown.  
 Edgar W. Warren — 622 W. 168th St., N. Y. C.  
 Robert S. Webbe — 25 West Elm St., Greenwich.  
 Orin R. Yost — 200 Retreat Ave., Hartford.  
 Elmo D. Zsiga — 2225 Main St., Bridgeport.  
 John R. Heafey — 230 West Ave., So. Norwalk.  
 Victor W. Anderson — 157 Riverside Ave., Westport.

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# Syphilis of the Central Nervous System

GEORGE A. GOSSELIN, M.D., Hartford, Conn.

The neurologist is seeing increasing evidence of the presence of lues, the tertiary and non-psychotic cases, exhibiting atypical phenomena and isolated organic signs not infrequently overlooked and discounted as unimportant. Isolated symptoms of tabes is an example, the complete syndrome being much less commonly encountered than two decades ago. The practitioner of today is more and more confronted with the problem of interpretation of organic neurological syndromes. Probably because of a richer literature and better diagnostic methods objective symptomatology is pointing out more numerous cases of lues of the type which can be readily confused with other diseases such as myelitis from pernicious anemia, metal intoxications, avitaminosis, disseminated encephalomyelitis, "chronic anterior polio" of the French, etc. "Syphilis is the great imitator," as Osler has so well put it.

On the other hand, there may occasionally be an imitator of syphilis. One may encounter cases of Adie's syndrome which is frequently unrecognized and mistaken for tabes dorsalis. Reflex and pupillary changes are rather suggestive of this latter condition. The pupils may simulate the Argyle-Robertson type, but thorough study of the timing of reactions will make the differentiation. The vegetative reflex arcs are involved from a probable toxic, metabolic or traumatic cause. Other disorders of the nervous system may complicate syphilis. We have observed post-encephalic Parkinsonism with a history of influenza and a positive Wassermann. Glandular dystrophies, so ably commented on by Alfred-Raymond Barthelmy in his excellent thesis "Heredosyphilis and Endocrine Dystrophies," are often neglected from the viewpoint of a congenital lues. Manyluet children die in infancy or go untreated because of the difficulty in general of obtaining specimens of blood or fluid except in experienced hands. The smaller percentage who survive come to the pediatric or neurological clinics with stigmata.

In acquired syphilis in the tertiary stage, in-

volvement of the central nervous system may be minimal. Isolated cranial nerve palsies without evidence of focal infection or exposure to the elements are all too frequently neglected because of negative serology. The writer has known five cases of isolated third nerve palsy, only two of which showed positive serology. All cases did well on iodides intravenously, which is highly suggestive in view of absolute similarity in the clinical picture. Cases exhibiting vague complaints which are suggestive either of a quasi-organic or a functional state, or those due to the changing morphology of a given virus are a frequent source of confusion in diagnostic criteria. The encephalidities, as an example, are responsible for pupillary inequalities, irregularities and sluggishness. Slight neurological signs of luetic significance are not considered by some examiners because of negative serology. A very detailed history of such cases is highly essential, for who knows but what a siege of illness with high temperature such as in a case of malaria, pneumonia, erysipelas or any septic process, might not have altered the serology in a patient in whom otherwise it would have been positive? It would seem that too much reliance is being placed upon the fact that apparently healthy children in a family with several miscarriages eliminates the need of serological and neurological tests on the parents in given cases. We have all observed parents of healthy neurologically negative children with no family history of miscarriages in which the father was paretic. In some instances, of course, one or two children of a group will succumb while others seem to have been conceived at a period of high parental immunity and are symptom free and serologically negative.

The national campaign to fight syphilis should in itself be a constant reminder to us to be more cautious in cases with minor neurological changes, and should make it easier to prevail upon patients to permit blood tests. This can be done casually without necessarily alarming the patient.

## Cancer of the Skin\*

Cancer of the skin, particularly when confined to exposed portions of the body, is one of the most important and most serious affections of the skin. It is estimated that at least three or four thousand persons in the United States die annually as a direct result of this disease. It is impossible to estimate the total number of skin cancers that occur in the United States during any one year because many thousands of cases are cured without being reported and others remain unrecognized while other cases of skin cancer die from some intercurrent disease and the skin cancer is not mentioned as a cause of death. It is ironic and tragic to have four thousand deaths every year in the United States resulting from a disease that is so easily recognizable and so curable if seen in its early stages by a competent physician.

New growths of the skin are not all cancerous but they should be suspected as such until proven benign by biopsy or by differential diagnosis.

The most common cancerous lesion is that arising from the basal cell layer of the skin and frequently called epithelioma or rodent ulcer. This type, along with those arising from the squamous cell or prickle cell layer comprise most of the skin cancers. The other cancers arising from the skin are composed of mixed cells or transitional cells, the melanomata, and the nevus cells.

The actual cause of cancer of the skin is still unknown but it is known that chronic irritation over a period of time will activate these causes and give rise to cancerous growths.

Heredity and racial characteristics which produce a definite quality of the skin predispose some families and some races to skin cancer. Acquired dryness and harshness on a dry seborrheic skin, one of the concomitants of age, are collaborating factors. Mechanical, chemical, and actinic influences increase the incidence among farmers, sailors, gardeners, etc. The sunlight factor produces many skin cancers, chiefly lip cancers, among the out of door laborers of

Texas and the Southwest. Tar contacts and crude oil among refinery works result in well known tar cancers. And for years the chewing of tobacco and pipe smoking has accounted for the fifty times greater prevalence of lip cancer among men over women. Inasmuch as about 56% of all skin cancers occur between the ages of 35 and 50 years, one might predict within the next decade or two an increased incidence of face and lip cancer because of the excessive use of tobacco and over indulgence in sun exposure through the craze of the younger generation to achieve deep tanning while on the unsheltered beaches.

The basal cell overgrowth, considered one hundred per cent "benign" perhaps should not be designated as carcinomatous. It occurs frequently and almost characteristically on the cheeks, forehead, face, and body. The small hard pearly lesion is too often unrecognized because of its benignity and its insignificance,—its simulation to a small papule or pustule, or a recently appearing colorless mole. Quite frequently the first appearance is at the edge of a follicle, a small sebaceous cyst, or even on normal skin. At this stage it is all too easy to squeeze, pick at, or open what is mistakenly considered a "blind pimple". Soon the typical lesion becomes chronic, increases in size, blood crusted, and even superficially ulcerated. An indurated, raised, pearly bordered lesion with central softening, ulceration or crusting, if located on the predisposing area as previously mentioned, should be considered as a basal cell carcinoma until disproved. Removal of the crust should always be made to determine if there is central ulceration which is even more diagnostic. Uncertainty of diagnosis requires a biopsy. This is a simple procedure with the use of a biopsy punch and is not disfiguring, even if the diagnosis proves to be that of a lesion less significant. The danger of the basal cell cancer lies in not recognizing it early as a malignant lesion. Therefore it is far better to totally destroy both the benign and the malignant basal cell lesions than to take a chance on leaving doubtful lesions

\*First of a series of articles prepared by the Tumor Committee, Connecticut State Medical Society.



which may later prove to be malignant. Too many neglected local lesions have become large and destructive because well intentioned physicians have advised the patient to overlook it and pay no attention to an early harmless appearing lesion. The tragedy is that advice is taken too literally, and even though a lesion enlarges and ulcerates, it is apt to be neglected until bone or cartilage destruction has occurred. At this late stage, as everyone knows, complete destruction of the local lesion is most difficult and uncertain.

The site of predilection for squamous cell cancer is naturally the lips, the lower much more frequently than the upper, the vulva and adjoining mucous membranes, the naso-labial folds, the ears, and dorsi of the hands. This lesion, because of early crusting, surrounding inflammation, and angry appearance, is much more apt to attract attention. Early ulceration and undermining of the margins with bleeding and crusting, and the rapid spread, are typically characteristic. However, lesions occasionally may be proliferative, papillomatous, verrucous, or vegetative, and appear quite benign, particularly if occurring at the edge of or under a keratosis on the lip, ear, or cheek of an elderly person. This type of lesion is prone to result from chronic arsenical keratoses, keratoses of radiodermatitis, tuberculous and syphilitic scars, chronically irritated unhealed burns, long duration varicose ulcers, and other definite but less common precancerous dermatoses. Occasionally squamous lesions will resemble the pearly nodule of the basal cell epithelioma. Then a biopsy alone can make the distinction. In general, therefore, the rapidity of growth, the early ulceration, the angry surrounding zone and deep penetration of inflammation, and the location on the sites of predilection, are almost pathognomonic characteristics of a squamous cell carcinoma.

It is unusual for carcinoma to arise in pigmented nevi or in the common mole. The incidence is very small in comparison to the thousands of moles which many individuals have and which do not become cancerous even though irritated at some time or other. The danger of malignancy depends chiefly upon the type of mole. Ordinary raised, brownish, hairy or non-hairy, or light colored moles very rarely become malignant, even with much irritation or by incorrect treatment. However, the melanoma, the flat or very slightly raised, bluish, bluish-black,

or steel-blue lesion is potentially very dangerous, and believed by some investigators to be a carcinoma anlage. This lesion should never be irritated and if treated should be removed very deeply and widely. Even benign appearing, non-irritated lesions of this type which were partially removed to forestall trouble have been followed by metastases. It is the belief of many observers that the irritated melanoma has already passed the remedial stage and all therapy is futile.

Metastases to the adjacent drainage glands vary — they may be immediate or late or none at all locally,— but this variation is no criterion as to the degree of malignancy. Inflammation of the local glands may cause adenitis without any actual cell migration from the primary lesion. Not infrequently death may occur by internal dissemination without involvement of the local glands.

It is excellent procedure to make a rough differential diagnosis of every suspected lesion — to rule out other common diseases such as a syphilitic chancre, tuberculosis of the skin, common verruca, and other common skin growths. A primary lesion of syphilis is always accompanied by a disproportionately enlarged gland draining the area, and the darkfield examination for spirochaetes is always positive. The age of the individual, possible exposure, history, and the location should be considered. A chancre has a cartilagenous, button-like feel, and lacks deep ulceration. It is a granuloma or raised lesion. Other signs of syphilis might also be present.

Tuberculosis about the apertures of the skin resembles carcinoma but the disease is secondary to internal tuberculous foci. Glabrous skin lesions are localized infections. These lesions are granulomas, enlarge slowly with or without ulceration, resulting in scarring, and have a distinctive apple-jelly colored hue on diascopic pressure.

Verruca are usually superficial on an uninfamed base. There is no ulceration or local glandular enlargement. Furthermore, the lesions are apt to be multiple with the primary source of infection located on the fingers.

The earlier the recognition of a skin cancer and the sooner and the more thorough the complete destruction, the better the chances for a permanent cure. Therefore it is the responsibility of the physician to make an early diagno-

sis. If he is uncertain then he should not hesitate about consulting a specialist who is experienced in the clinical aspect of the various possibilities.

Occasionally the practitioner can handle simple lesions. If changes occurred in a seborrheic keratosis, or a small ulcer appeared in any area of radiodermatitis, the entire lesion, if small, can easily be destroyed by cautery or electro-surgery, and a cure accomplished because these lesions are slow to metastasize and the degree of malignancy is very low. It is far better to err on over destruction than to temporize by palliative treatment and sometimes stimulation of the proliferating cells.

The prognosis in basal cell lesions, if the destruction does not already involve vital inaccessible tissues, is practically 100% for a cure. Squamous and transitional cell cancers vary usually with the location, duration, laboratory grading, (if a biopsy has been taken), and somewhat with the degree of metastasis. For instance, basal lesions are slow growing, quite benign, until they metastasize and then are very difficult to cure. Early treatment results in cures. On the other hand, lip lesions may metastasize at once and be difficult to cure, although many of these cases have been readily cured by treatment of both the local lesion and the gland. Melanotic lesions, particularly of the feet, are most difficult to treat in any manner and the prognosis is very dubious.

The first axiom of treatment is that to be effective in all types of cancer of the skin, the treatment must destroy every cell, otherwise even in the "benign" lesions proliferation of any remaining cells would result in a local recurrence. To temporize with acids, paste cancer cures, ointments, physical therapy, much ultraviolet radiation, etc., is fraught with danger and might enhance the activity of the proliferating cell. Such treatment practically constitutes malpractice. Destructive treatment can be accomplished absolutely only by such agencies as cautery, electrosurgery, radium, roentgenotherapy, and surgery. Each modality has its advantages and its deficiencies. For instance, cautery or electrosurgery can completely destroy a very early small squamous cell lesion of the keratotic type on the lip with less deformity than can be done by surgery. On the other hand, only surgery with a semi-plastic procedure

can produce a satisfactory result in a large lesion at the same site. Occasionally radium or roentgen therapy accomplishes a cure more easily in inaccessible lesions or those that are radiosensitive. Any of the above modalities can readily destroy a basal cell lesion, but the cosmetic end result, particularly in this type, is certain to be considered just as carefully as the destruction. A benign or small lesion need not be followed by gross disfiguration. Quite often all or any of the methods must be used to attain the end.

Where there is gland involvement the problem taxes the resources of all and this subject is outside the scope of this paper. However, it should be emphasized that experience and judgment of others should be sought so the individual will have the benefit of combined judgment and combined therapy as needed.

In spite of our knowledge of skin cancer, its pathology, its treatment, etc., the great lesson that all should learn and bear foremost in mind is that more should be done by way of prevention. The mortality can be lowered and the incidence of cases reduced if each physician will suspect all precancerous lesions and eradicate all chronic lesions of the skin. If the physician feels incompetent he should take a biopsy or consult with the specialists who can make a diagnosis for him. With the positive information thus secured, the physician can dispose of the case, depending upon the diagnosis and indications, by referring him to the various specialists who will employ the most effective therapy which in their judgment, skill, and experience, seems most appropriate.

Eventually, through education, the layman will learn to seek the physician, who must be able to determine the next step, whether it should be active or delayed. To do this the physician must be alert and well versed in diagnostic acumen. Ultimately skin cancer mortality should be eradicated and cancer cases reduced to a minimum.

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#### PLACENTAL TRANSFER OF SULFANILAMIDE

Sulfanilamide given to pregnant women shortly before or during labor is absorbed in the gastro-intestinal tract and passes readily through the placenta to appear in almost equal concentrations in maternal and fetal venous bloods.—*N. E. Jour. Med.*, July, 14, 1938.



## The Pre-School Age - - The Stepchild in Preventive Medicine\*

S. ALLISON ROSE, M.D., Stamford, Conn.

This is an age of dynamic social consciousness. Widespread education — propaganda, if you will — and the swift transmission of information from laboratories to the man on the street have acted to stimulate the normal interest in matters of public health. The emphasis on prevention of disease and disability as contrasted to treatment is but an outgrowth of the reorientation of the popular mind in response to the teachings of health authorities over a long period of years.

As a result of this social pressure, the battle front of preventive medicine has been pushed back farther and farther into the development of the individual. The prenatal period and the period of infancy have by this time come under the aegis of public-minded citizens acting in private or official capacity. Likewise the period of life beginning with school registration has — to a greater or lesser degree — come under the surveillance of prevention-conscious agencies in the form of school, camp and club personnel. If it is true that the period from birth to adolescence is the breeding period of adult ills, it is patent that a hiatus exists in this preventive program for the period designated as the run-about or pre-school age.

Counterparts of well-baby conferences in the form of nutrition classes, posture classes, habit clinics have been attempted. For many reasons they have failed to engage or hold the interest of the public. Perhaps the chief reason is the reaction to the high-publicized and carefully supervised period of infancy with its frequent consultations about diet, immunizations and physical development. With the arrival of the eighteen or twenty-four month level, the suasive powers of doctor, nurse and neighbor weaken in intensity and a period of desuetude ensues. As long as there is no apparent impairment of health the child rarely is the subject of medical supervision. The *positive* attitude fostered during the stage of infancy — the objective of good hygiene in terms of normal growth and develop-

ment — is allowed to become blurred. What makes this lapse so significant and serious is the realization by all who are competent to judge that beginnings of deviation from good health are too subtle to be grasped by the casual though earnest observer. Said Dr. Charles W. Mayo in an address a few years ago, "The surgeon constantly sees disease which results from infection and which possibly is not noticed until long after the infection has been curbed. This manifests itself in the liver, lungs, kidneys, heart, intestines, bones and joints, and glands." The conditions prevalent at this period which bear the seed of future jeopardy to health and life are well known. It may be well to list a few:

Epidemic contagious diseases — measles, scarlatina, meningitis, pneumonia — their complications and sequelae.

Food intolerance — allergy, celiac disease, diabetes.

Deficiency states — anemias, avitaminosis, dental caries.

Chronic fatigue, faulty posture.

Chronic upper respiratory infections.

Chronic anorexias.

Chronic malnutrition especially in terms of loss of tissue turgor and muscle tone.

Faulty vision and hearing.

Behavior disorders and personality difficulties.

Chronic infectious diseases — tuberculosis, rheumatism.

Endocrine disorders — dyspituitarism, cryptorchidism, thyroid dysfunction.

The file of any active practitioner or clinic abounds in instances of case histories in which conditions of marked gravity have been suffered to develop unrecognized through failure to submit these children to regular health examination. To illustrate, three typical cases of recent vintage are cited:

Eleanor W., three years of age, taken sick with an acute respiratory infection. Dyspnea, expiratory grunt, fever pointed to pneumonia. Signs of consolidation were

\*From the Pediatric Services of the Stamford Hospital, and the New York Polyclinic Medical School and Hospital.

elicited on the third day. When resolution failed to occur by the fourteenth day child was submitted to an X-ray examination of the chest. Reading of the plate indicated a tuberculous pneumonia. A Mantoux test, one one-hundredth milligram of old tuberculin, gave a four plus reaction. Search was instituted for the source of infection in the members of the household. It was found in a grandfather who infrequently visited the home. He was persuaded to go to a hospital. The child is still desperately ill. Eleanor had been under the regular care of a physician up to the age of eighteen months when attendance was allowed to lapse. No tuberculin test had been done.

Donald L., aged 6 years. Came to the office as escort to his mother and baby sister. A casual inquiry of his mother as to his large size brought the rejoinder that this was due to laziness and an inordinate appetite. Examination revealed that he weighed seventy pounds and measured forty-eight inches in height (about thirty per cent above the Baldwin and Wood table). The distribution of fat was typically feminine — breasts and hips. Obvious too was the genital hypoplasia. In addition, one testicle had failed to descend. A diagnosis of Frohlich's Syndrome and cryptorchidism was made. Treatment was instituted and is still in effect. After six months he has lost twelve pounds in weight, his genitalia have definitely increased in size and the scrotum now contains both testes.

Vito G., aged 5 years. He was brought to the clinic by his father who came to arrange for a tonsillectomy for his son. The complaint was that the patient was always tired, wan and whiny. Vito's health during infancy and up to the age of three years was entirely satisfactory. At this point he was taken ill with scarlet fever from which he recovered in a month. His father recalls being told of a murmur of the heart but he was assured that it was due to anemia and would respond to tonics. No further check-up was made or requested. On examination Vito was found to be a sallow-faced, thin child, apparently unhappy. Tonsils were enlarged and cryptic. Anterior cervical glands were palpable on both sides and tender. Examination of the thin chest showed a heaving cardiac impulse. The apex beat was displaced to the left. On auscultation a loud systolic murmur transmitted to the axilla could be heard. Shortness of breath was noted following the exertion of undressing. A diagnosis of Mitral Insufficiency — Heart Disease, Class 2a, was made, and a regimen of rest and hyperalimentation was instituted.

A program of proper health examinations should include as a minimum the familiar, but too infrequently utilized, diagnostic tests:

Tuberculin test — repeated semi-annually.

Schick test — repeated in five years if negative — further immunization given if positive.

Dick test — repeated in one year if negative — further immunization given if positive.

Blood counts and smear — every six months.

Urinalysis — every six months.

These, of course, supplement a conscientious

physical examination. Following any acute infection, particularly, monthly examinations should be requested for a period of six months.

How to keep the child from birth to puberty under the guidance of competent, health-conscious practitioners is the problem of profession and laity alike. If the physician chooses to abdicate his function as teacher, lay organizations will presently step into the breach as the physician has to his consternation discovered in the past. Certainly methods of mass education have demonstrated their efficacy in arousing interest and enthusiasm in everything from vitamins to pink tooth-brush. What is needed is well-informed and persistent leadership. The goal should be semi-annual examinations of every child between the ages of two and six years. The family physician and pediatricist is still the best equipped agency to guide the child through this hazardous period of growth and development. This cannot be fairly contradicted. Mass activities such as clinics, round-ups and classes are easier to inaugurate and maintain and have a legitimate function where circumstances prevent the bringing together, in other ways, of the physician and the child. However this type of service is rendered, the effort must be towards comprehensiveness and individualization rather than large attendance per each individual physician. In this way only can the means of prevention at our command be fully exploited and the great gap now existent between research institution and field work be narrowed.

It is obvious that the opportunity for the individual physician to aid in the education of the public is limited. County and State medical societies may well assume the direction of this movement to preserve health and promote it at this most vulnerable stage — the pre-school age. 25 Bedford Street.

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## MATERNAL AND CHILD HEALTH

Evidence of widespread interest in maternal and child health is met at every turn. During the past year more than \$42,000,000 was spent by State health authorities in promoting public health, and of this amount 14.7 per cent was spent on maternal and child health activities. —*The Child*, June, 1938.



# The Surgical Treatment of Peptic Ulcer

THOMAS J. SULLIVAN, M.D., New Haven, Conn.

There are several indications for surgical treatment of Peptic Ulcer. In the order of their necessity they are as follows:

1. Perforation, the most urgent, is usually of an anterior wall duodenal ulcer; posterior wall ulcers perforate but more often slowly erode into the pancreas. Gastric ulcers perforate less frequently than duodenal. A perforated ulcer should be treated surgically as soon as possible. It is a serious complication with a high mortality, 20%, and delay adds to the risk. The perforation should be closed with a purse string intestinal suture and covered with a tag of omentum, without further surgery. Drainage is optional and depends upon the amount of soiling. It was formerly taught that perforation cured the ulcer but almost fifty per cent cause further trouble and obstruction frequently follows.

2. Obstruction often follows the healing of an ulcer near the pylorus as it does a perforated ulcer which has been plicated and is due in each case to cicatricial contraction. Gastro-enterostomy is most beneficial in this condition. However, in young people with high gastric acidity partial gastrectomy is more satisfactory because of the risk of marginal ulcer in those patients, following gastro-enterostomy.

3. Repeated massive hemorrhage without cure by medical treatment calls for surgical intervention. No surgery should be done during the acute stage, but when the patient recovers sufficiently partial gastrectomy should be performed. Blood transfusion may be indicated pre-operatively and repeated if necessary. Severe repeated gastric hemorrhages may follow gastro-enterostomy, and these cases can be cured by partial gastrectomy.

4. Intractable cases are all those which have had adequate medical treatment without relief of pain, loss of weight, hemorrhage, and failure of improvement as shown by repeated X-ray examination. These include the posterior wall duodenal ulcers penetrating the pancreas, those of the lesser curvature causing partial obstruction and hour glass stomach and those which are

suggestive of malignancy. Sometimes duodenal ulcers perforate into the gall bladder or attach to the bile ducts and cause chronic symptoms resistant to medical management. Most of these cases require partial gastrectomy.

5. Post-operative ulcers usually require further surgery. The most common type is the gastro-jejunal or marginal ulcer which involves the gastro-enterostomy stoma. The frequency of marginal ulcer is a very controversial subject and depends greatly on the clinic reporting a series. European surgeons report high percentages, 33-50%, and this has been confirmed by many surgeons in this country and Canada. Others have found a smaller number, 3%, and the discrepancy is probably because the gastric pathology differs in various clinics. In many there were diffuse gastritis and multiple ulcers in the gastric mucosa of stomachs removed by partial gastrectomy, whereas in other places this condition was not found. Partial gastrectomy is the operation of choice for marginal ulcer. There are cases, following a gastro-enterostomy, with or without cure of an ulcer, in which ulcers later form in other parts of the stomach. In these cases partial gastrectomy should be done.

## Partial Gastrectomy vs. Gastro-enterostomy

Gastro-enterostomy is more beneficial in cases with obstruction at the pylorus, and in patients whose physical condition and age make more radical attack too hazardous. Many times it gives great benefit and it should not be entirely discarded because of its shortcomings, which are many. It is an indirect method which leaves behind the ulcer, and with it all the risk of failure to heal, perforation, hemorrhage and marginal ulcer, and in many clinics gives only fifty per cent cure. It is much less dangerous but it has been estimated that were you to add the secondary mortality for marginal ulcer, hemorrhage, perforation, etc., to that of the primary gastro-enterostomy, the total would equal or surpass that of partial gastrectomy.

Partial gastrectomy or subtotal gastrectomy is becoming more popular in this country and Canada, as it has been in Europe, especially in Germany and Russia. It is a direct attack upon the ulcer and its cause, namely hyperacidity. By removing the ulcer and the acid bearing portion of the stomach favorable results follow. Marginal ulcer rarely follows a properly performed partial gastrectomy. When the mortality from partial gastrectomy falls, as may happen with further experience, there will be much less objection to it. It is necessary to remove the distal two-thirds of the stomach in order to get the best results and some of the failures have been caused by not removing enough.

The Hofmeister modification of the Polya operation is the method of choice and may be performed under local, spinal or general anaesthesia. When the ulcer is fixed to the pancreas or bile ducts it may be safer to exclude the ulcer by the Devine method. In marginal ulcer it may be necessary to do a resection of the jejunum with a partial gastrectomy when the ulcer involves the jejunum. Pernicious anaemia does not follow partial gastrectomy. The chief causes of mortality are cardio-vascular failure and pulmony complication. Great care must be used in the selection of cases for these reasons.

The following brief case histories illustrate some of the points enunciated above:

J.D., white, married, male, Lithuanian, mechanic, age 46 years, was operated upon April 3, 1937 at the Hospital of St. Raphael under G. O. & E., and a perforated ulcer of the first portion of the duodenum, anteriorly, was found. Closed by suturing a tab of omentum over perforation. Impossible to pursestring suture because of the induration. Left hospital seventeen days later. G. I. series ten months later showed almost complete obstruction at the pylorus and February 10, 1938 he was operated upon under G. O. & E. at the Hospital of St. Raphael. A large healed duodenal ulcer, completely constricting the pylorus, was found. Posterior gastro-enterostomy was performed and the patient left the hospital three weeks later. He has gained eight pounds and has no gastric symptoms, March 26, 1938. He is on a restricted ulcer diet.

J.Q., white, male, married, Irish, motorman, age 53, operated upon March 28, 1921 at Hospital of St. Raphael, after G. I. series showed a complete obstruction of the pylorus. G. & E. anaesthesia. Large healed duodenal ulcer found. Posterior gastro-enterostomy performed. Weight before operation 160 lbs. Present weight March 28, 1938, 210 lbs. and no gastric symptoms. Regular diet.

J.R., male, white, single, American, salesman, had three massive hemorrhages and was treated in three differ-

ent hospitals. After last attack was brought to the Hospital of St. Raphael. X-ray showed duodenal ulcer of posterior wall. Operation March 18, 1936 showed posterior duodenal ulcer penetrating pancreas. Partial gastrectomy was performed under G. O. & E. Has gained 8 lbs. and has no gastric symptoms March 17, 1938. Shortly after leaving hospital he complained of feeling faint after eating. This was caused by too rapid emptying of the stomach and was cured by eating more frequently, every four hours, until the stomach accommodated itself. Diet restricted as to condiments and alcoholic beverages.

W.R., white, single, U. S. A., clerk, age 28 years, had stomach trouble for ten years and had medical treatment in two hospitals. X-ray showed an ulcer of the lesser curvature. Operation February 15, 29 at Grace Hospital under 1% Novocaine local showed an ulcer of the lesser curvature and also a duodenal ulcer. Partial gastrectomy was performed. He has gained 15 lbs. and has no gastric symptoms. No diet restrictions.

Mrs. W.S., white, female, married, Irish, age 34, had stomach trouble nine years. X-ray showed an hour glass stomach. Operation July 6, 1926 at Grace Hospital under 1% Novocaine local showed a large indurated ulcer of the lesser curvature. Partial gastrectomy was done. Weight before operation 89 lbs. Present weight March 1, 1938, 110 lbs. No gastric symptoms. No diet restrictions.

K.M., white, single, American, housekeeper, age 40 years, had stomach trouble fifteen years. X-ray showed an ulcer of the lesser curvature. Operation March 10, 1929 at Grace Hospital under G. O. & E. Large indurated ulcer of lesser curvature found. Partial gastrectomy. Has gained 16 lbs. March 2, 1938, and has no gastric symptoms. No diet restrictions.

J.F., white, single, American, mechanic, age 26 years, had a posterior gastro-enterostomy performed for a duodenal ulcer seven years previously by another surgeon. He was well for six years and then began to have gastric symptoms with severe pain. Medical treatment failed and he was X-rayed and an ulcer of the lesser curvature was discovered. He was operated upon July 17, 1936 at the Hospital of St. Raphael under G. O. & E. and a large indurated ulcer of the lesser curvature was found. The gastro-enterostomy stoma was perfect and there was no sign of marginal ulcer. A partial gastrectomy was performed without interfering with the gastro-enterostomy and about one-half the stomach was removed. Although this seems a more conservative procedure it actually is more difficult and fails to remove all the acid bearing portion of the stomach. However, he has regained about 20 lbs. and has no gastric symptoms March 1, 1938. No diet restrictions.

The diet should be restricted following gastro-enterostomy to exclude acid forming foods, condiments and alcoholic beverages. Following partial gastrectomy in many cases the patients find that they can eat and drink without discomfort and when they discover this they often discard their diet and let their appetite be their guide.



## Connecticut Obstetrical Consulting Service

JOSEPH H. HOWARD, M.D.

Chairman, Public Health Committee

There has been a gradual awakening of both professional and lay groups to the need of providing more adequate medical and nursing care for women during their maternal period. The question of better care has been discussed as a result of surveys of maternal mortality in various parts of the country which show that fifty to seventy-five per cent of all maternal deaths could be prevented if expectant mothers would seek medical care early in pregnancy and continue under close medical supervision throughout the entire period. Discussion has been intensified by statistical reports on maternal mortality which make it appear that the United States has a higher rate than certain foreign countries. Statistics also show that diseases of pregnancy and child birth are among the leading causes of death of women between the ages of fifteen and forty-five years.

In comparing Connecticut with the other states of this country, it is noted that the maternal death rate in Connecticut indicates a good record. For the calendar year 1935, the rate was forty-three per 10,000 living births as compared with fifty-eight for the United States as a whole; and for the year 1936, the rate was forty-one as compared with fifty-seven per 10,000 living births for the United States as a whole. However, it is hoped that an even lower death rate may be made in the future.

With this end in view, in June 1937, the Public Health Committee of the State Medical Society recommended that some provision be made for giving more adequate obstetrical care to women living in rural areas who fall in the income group just above the relief level. The committee was aware that certain definite limitations would have to be designated if the aim of this program were to be carried out.

It has long been recognized that the very poor, or relief cases, can secure medical care through town aid and hospital ward service when necessary. While on the other hand, those in the

economic group who can pay a small amount toward their medical care are financially unable to meet any unexpected expenses, but are not eligible for Welfare services. It is for this limited group of cases who are able to pay for the everyday expenses of living and who are perhaps, even able to save something toward the cost of confinement, that provision is being made for obstetrical consultations when the physicians feels that it is necessary.

Furthermore, people who live outside of urban centers often have difficulty in securing medical aid especially if they are within this limited financial range. The welfare facilities available in cities and towns having a population of more than 30,000 are usually sufficient to serve their residents regardless of the individual family income of those residents. At any rate, a resident of the city has a much better chance of securing medical aid in an emergency than does one who lives in the country. In keeping with this thought, the Social Security Act, Title V, part 1, states that funds shall be used for people living in rural areas or in areas suffering from severe economic stress.

In order to initiate a program which would provide obstetrical consultation for women living in rural areas, and who come within the limited financial income group, an effort was made to secure money through the State Department of Health from Social Security funds, for an obstetrical consultation program. Funds have been secured for this work for the year July 1, 1938 to June 30, 1939, and if the program produces the expected results, it is likely that funds will be continued for this purpose.

The problem of securing the help of qualified obstetricians was approached by consulting the Connecticut members of the American Board of Obstetrics and Gynecology and by consulting other physicians known to have had special training or extensive experience in obstetrics. The names of this latter group were secured

through the county medical associations and through physicians acquainted with their work. Each obstetrician gave a record of his training and experience and only those were appointed who were recommended by the Obstetrical Subcommittee of the Public Health Committee. As additional names are suggested and approved they will be invited to act as consultants.

The services of these physicians are available as obstetrical consultants for those maternity patients who are not cared for by any other agency and who are unable to pay for a consultation when the attending physician feels that it is necessary. Any physician who is caring for such a maternity patient living in a town, with a population of less than 30,000, may request a consultation at any period of the pregnancy or the puerperium. A ten dollar fee is available for the obstetrical consultant. This fee is a nominal one but for the sake of improving care for maternity cases the consulting physicians have agreed to give this service.

According to the latest figures available (1938) the following towns have a population of less than 30,000, and are therefore on the eligible list.

Ansonia	Manchester	Stafford
Berlin	Middletown	Stonington
Branford	Milford	Stratford
Darien	Naugatuck	Thompson
Derby	New Canaan	Torrington
East Hartford	Newington	Vernon
East Haven	North Haven	Wallingford
Enfield	Plainfield	Waterford
Fairfield	Plainville	Watertown
Farmington	Plymouth	West Haven
Glastonbury	Putnam	Westport
Griswold	Seymour	Wethersfield
Groton	Shelton	Winchester
Hamden	Southington	Windham
Killingly		Windsor

The purpose of this program is to make it possible for physicians to obtain skilled obstetrical consultation for abnormal or borderline cases who otherwise would not be able to secure this type of care. Medical ethics and customary professional practice serve as the basis for this program and are to be adhered to at all times. A physician requesting consultation will regard the consultant in the same light as he would regard a consultant for any of his other patients.

## THE AMERICAN CONGRESS ON OBSTETRICS AND GYNECOLOGY

Preparations are proceeding for convening the American Congress on Obstetrics and Gynecology during the week of September 11, 1939, in Cleveland, Ohio.

The Congress has been organized to include the interests of various groups of participants, such as medical educators, physicians, nurses, public-health workers, hospital administrators, and others interested in the problems of human reproduction. The morning sessions are allotted for the presentation of scientific and technical papers in each group; in the afternoons mixed groups will participate in general discussions, and the evening sessions will be for the public, probably with broadcasts.

In addition there will be exhibits illustrating the work of various public and private agencies and of individuals engaged in scientific activities pertaining to human reproduction.

The directors of the American Committee on Maternal Welfare, Inc., constitute the governing body for the congress. The organization of the committees is not yet completed.

The officers of the congress are desirous of enlisting the cooperation of all interested groups and individuals, and are glad to receive inquiries and suggestions. Inquiries may be addressed to the executive office of the congress at the Annex of the American College of Surgeons, 650 Rush Street, Chicago. The general chairman is Dr. Fred L. Adair.—*The Child*, May, 1938.



## STILLBIRTHS IN THE UNITED STATES

Approximately 75,000 stillbirths are registered each year in the United States, although it is well known that registration is incomplete. Moreover, the stillbirth rate has not decreased appreciably in recent years. Records of 6,750 stillbirths of twenty weeks or more gestation were received from 229 cooperating hospitals situated in 25 states and the District of Columbia. The data are now being analyzed. It is believed that as a result of this study recommendations can ultimately be made for reducing the high mortality from stillbirth and for preparing a satisfactory classification of causes of stillbirth and rules for assignment of cause.—*The Child*, Mar.-Apr., 1938.



# Presidents' Proscenium

## Socialized Medicine\*

JAMES C. SARGENT, M.D.

President, The State Medical Society of Wisconsin

It is with considerable pride, I assure you, that I come before you today. To be privileged to stand here as the titular head of the physicians of our great state is an honor substantial indeed. To be trusted with the responsibility of defending the heritage of an age old and honorable profession is a challenge both thrilling and profound.

I have been asked to address you this morning on the subject of "Socialized Medicine". Like many another catch phrase so seized upon in these roaring times, the term "Socialized Medicine" has acquired such a wide spread of meaning as to demand some definition if one chooses to speak upon it. It is never easy to unscramble eggs. Nevertheless, I insist that if we are not to lose ourselves in a mess of meaningless generalities, it is necessary that we break down the theme of our thinking into its two fundamental aspects. Paradoxical as it may appear, there are, wrapped up in the general subject of socialized medicine, two fundamental factors so closely akin as to be almost inseparable yet so completely contrary in their separate portents as to defy utterly their amalgamation. I refer, on the one hand, to social planning as a practical aid in the care of the sick and on the other, to socialism as a politico-economic philosophy applied to the practice of medicine.

The growing complexity of civilization has brought with it an endless procession of needed changes in our system of sickness care. As medicine grew from 18th century mysticism and 19th century empiricism on into 20th century science it became necessary, in the public interest, that standards of education and of licensure be established. The organized medical profession led in that social planning. As newer methods of sickness care came to require the modernizing, the expansion, the equipment and the standardizing

of hospital facilities, the organized medical profession led in that social planning. As a highly skilled form of nursing care became a necessary adjunct to modern medical practice, the organized profession inspired, encouraged and even actually labored in the accomplishment of that bit of social planning. As our centers of population gathered and thickened, new problems developed in sanitation and in contagion. The organized profession literally camped on the doorstep of legislative halls until county, city, state and federal health departments had been organized, adequately financed and efficiently manned to provide against this growing menace. Again the profession led in some mighty important social planning. With a growing knowledge concerning the many diseases, certain of them came to be set apart as requiring special institutional care. Asylums and sanatoria were finally constructed, the organized profession being responsible for yet another bit of social planning. Over the years the unemployables of industry accumulated, poverty stricken, in our larger centers. Their very concentration finally made their sickness care a real problem and a system of county physicians was devised for their "home" care, free dispensaries were built for their "office" care and large modern county and state hospitals were provided for their "hospital" care. The organized profession led in that social planning. Quite lately, as public relief has had to be expanded to include enormous numbers of the unemployed, the problem of their medical care under the several systems of relief came to be at once complicated and acute. Again organized medicine led in some important social planning. Even now medicine stands on the threshold of another great movement in public health; that of fighting certain of the

\*Opening paragraphs in a thesis of that title read before the Women's Court and Civic Conference, Milwaukee, March 16th, 1938.

great plagues through propaganda and public education. True to its long tradition organized medicine is leading off in this newest field of social planning.

Down through those decades during which medicine has been at all modern, yes, even back through the ages, never have physicians had to be urged to social planning as a practical aid in sickness care. It is a matter of consistent record since Wisconsin has been a state that long before the need for these many social developments was even dreamed of by the public at large, organized medicine was well on the way to their accomplishment. If, by the socialization of medicine, one has in mind this sort of forward looking social planning as a means of bettering the care of the sick, medicine has been and will continue permanently committed to the program.

But that socialization of medicine which is intended merely as a step in the establishment of a distinctive regime of political economy is another matter. It is of prime importance to our thinking that this distinction be kept clear between the type of truly social planning which our profession always has inspired and the socialization of medicine proposed as a matter of pure economic expediency. One deals in the human relations of individuals; the other in the political relations of peoples. One proposes a perpetuation of the steady progress that prevails in the science and art of medicine; the other purposes a dizzy flight into a realm of economic and political scheming already largely discredited by its own wide experience elsewhere. One holds the undying interest and support of my profession; the other is pure anathema to our cause.

While there is not time nor is this an occasion for a full recital of the shocking record which socialism in medicine has made during its steady swing around the globe, it does seem proper to pause long enough to outline briefly the reasons why organized medicine has come to hold such adamant views against it. Brought sharply into focus, the whole harm that emanates from the

socialization of the care of the sick is seen to center about the consistent and profound manner in which individualism is smothered under the system. However much one's idealism may tempt him to believe otherwise, the fact remains cold and irrevocable that wherever sickness care has come to be supplied through organization and mass effort, then and thereafter individualism within the profession has disappeared. However much one's theories may lead him to expect good to come from organization in sickness care, invariably this loss of individualism within the profession has resulted in a progressive deterioration in both the science and the art of medicine. Those are the damning facts of living experience and no manner of rhetorical fervor can erase them.

If one chooses to deny this human experience he must disclaim such authority as Cronin in his "Citadel" or Eugene Lyons in his "Assignment in Utopia"; he must disregard the fact that old world medicine, now for years fettered by its several forms of socialism, has long since stopped breeding a Mechnikoff, an Ehrlich, or a Pasteur; he must overlook the consummate deterioration of the former centers of advanced medical learning in London and in Edinburgh, in Paris, and in Prague, in Munich, Berlin and Vienna; indeed he must blind his eyes to the pertinent fact that here in America — the last stronghold throughout the world still holding honor and reward for individual excellence in medicine — that here, and here alone, is the flower of medical science radiant and in full bloom.

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#### AMERICAN COLLEGE OF SURGEONS RAISES ITS REQUIREMENTS

The American College of Surgeons has raised the requirements for fellowships for those whose medical degrees shall be obtained after January 1, 1938. The new requirements are three years of hospital service in approved hospitals, two years of which shall be devoted to surgery. —*Ohio State Med. Jour.*, July, 1938.

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# Association of Connecticut Tumor Clinics

## Cancer of the Skin with a Statistical Survey of Skin Tumor Cases\*

PHILIP ARTZ KEES, M.D., Norwich, Conn.

Cancer of the skin, also called epidermoid carcinoma or epithelioma, never begins in normal skin, but in some abnormal area such as a wart, old scar, fissure, ulcer, thickening, or chronic eczema. It is self evident that if these pre-cancerous lesions are cured, no carcinoma of the skin will develop; however, the appalling fact exists that there are approximately four thousand deaths from cancer of the skin in the United States each year. This, no doubt, is in large part due to the ignorance of the public that practically all skin cancers can be cured by a physician, especially by one specializing in cancer treatment, and also to the fear which the thought of cancer brings to the patient so that he does not come to the physician early for his condition.

Cancer of the skin usually starts as a slight roughness or lump in the skin, which the patient notices but ignores because of its painlessness and slow insidious development. It is believed that every lesion of the patient's skin should be restored to normal by the physician as soon as possible to prevent further malignant development as practically all epidermoid carcinomas can be prevented or cured if treated early before infiltration or metastasis occurs.

Chronic irritation is thought to be the usual cause of most epidermoid carcinomas through its causing a stimulus to cell growth. These stimulated epithelial cells do not go through their normal skin growth process of proliferation to differentiation, but instead continue to proliferate wildly. As this proliferation continues, the nourishment decreases for the more tightly packed, older center cells in the center of the mass, so that necrosis of the center mass occurs

with the new cells growing on the periphery of the tumor. This process of growth is known as direct extension and is in the direction of least resistance along the intercellular spaces. Another process of skin cancer growth is via the lymphatic system by means of lymphatic permeation or emboli.

(About 90% of all skin carcinomas develop on the face, neck, or hands, which are unprotected by clothing against external chronic irritation.) Approximately two-thirds of skin cancers are known as the basal-cell type, and one-third as the squamous-cell type. Epidermoid carcinoma may occur as single or multiple lesions; however, they are usually single.

Basal cell cancer occurs mostly in older people at an average age of 57 years. It is usually seen as a papillomatous lesion or as a "rodent ulcer," so called because of its slow, destructive, gnawing character of growth. The characteristic lesion consists of an ulcerative, cicatricial area with a raised wax-like border. They are most common on the face, especially the upper half, but also occur elsewhere as the skin of the neck, arms, back, chest, abdomen, buttocks, perineum, and legs. Basal-cell lesions are usually well localized and seldom metastasize, but they do infiltrate the surrounding and underlying tissues, and eventually to such an extent as to be incurable. Histologically, they consist of nests of deeply staining elongated cells, located below the skin basement membrane, containing oval or elliptical nuclei and increased chromatin, and growing by anastomosing processes between the nests.

Squamous-cell skin cancer occurs usually at the muco-cutaneous junctions of the body as

\*Read before the 9th Meeting of the Association at Norwich, April 14, 1938.



May 25, 1937



Dec. 24, 1937

Fig. 1. C.B., male, age 76, admitted to the Wm. W. Backus Hospital Tumor Clinic on May 25, 1937, with an ulcerative epidermoid carcinoma, 6 x 10 cm. in diameter, on the right side of his neck of one year's duration. He received a 2400 r series of high voltage X-ray therapy given in daily doses of 400 r for six days each. He was completely healed on Dec. 24, 1937, and has been well ever since.

the lip, eyelid, nostrils, genitalia, and anus, and less commonly in the skin apart from these places. A typical squamous-cell skin cancer begins as a slight thickening or small nodule. Ulceration usually occurs, the ulcer does not heal and is covered with a crust. The edges of the tumor are hard, everted, and generally undermined. The tumor rapidly metastasizes to the nearby lymphatic nodes which become enlarged and soft, or small, soft, and fibrous, and then it may involve the internal organs. It also gradually extends peripherally and involves the surrounding tissues. It is more malignant than basal-cell carcinoma. Squamous-cell carcinoma is more differentiated than basal-cell carcinoma in that it forms prickly cells which are seen histologically as polyhedral cells with protoplasmic processes between them and also keratin masses called epithelial pearls which are the center cells of the tumor which have been killed by the pressure exerted by the actively growing peripheral cells.

In about 5% of skin cancers, there occurs a mixed lesion having some basal-cell and some squamous cell characteristics.

One method of grading the malignancy of skin cancer and other tumors is based on the amount

of differentiation occurring in the tumor, i.e., the amount of approach of the tumor cells to the normal. Grade I has 75 to 100% tumor cells differentiated, responds poorly to radiation, but has the best prognosis. Grade II has 50 to 75% differentiation. Grade III has 25 to 50% differentiation. Grade IV has 0 to 25% differentiation, responds well to radiation, but has the worst prognosis. It is well when grading this malignancy, however, to strongly consider the clinical symptoms, age of the tumor, the amount of infiltration, and etc.

Before considering treatment of cancer of the skin, attention will be paid to the precancerous lesion which, if performed successfully, will prevent cancer of the skin. Moles, warts, crusts, ulcers, and fissures are best eradicated under local anaesthesia at one sitting by dissection or electro-coagulation. If the lesion is not too deep, only slight or no scarring will result. Large scars after twelve to fifteen years often develop epidermoid carcinoma of a squamous-cell type which begin as small fissures or erosions and then gradually spread. It is usually advisable to remove the large scar by electrothermic dissection, and perform a skin graft some three weeks later when healthy granulations have formed. A large burn



scar treated with an early skin graft will not develop cancer of the skin. Moles, warts, scars, and epitheliomas in scars are best destroyed by electrocoagulation followed by irradiation which will not only increase the likelihood of cure but will reduce scar formation. Warts can also be treated alone by a destructive dose of X-ray. The X-rays are useful in treating keloidal scars and eczema, but the treatment should not be prolonged indefinitely because of its cumulative effect. Radium and X-ray are useful in the treatment of angioma, but generally one has to count on two years for satisfactory results. Injection of sodium morrhuate into the vessels of a small angioma often results a quicker cure.

In the treatment of cancer of the skin, it cannot be emphasized too strongly or reiterated too frequently that, with the knowledge and skillful methods now available, practically all cancers of the skin can be cured if thoroughly treated from the beginning while it still only affects the skin. If the cancer is not treated, treated incompletely, picked at, or irritated until it has involved the deeper tissues as muscles or bone, then many failures will occur, and success will demand the greatest skill and a combined use of surgery, electrocoagulation, X-ray, and radium.

It is necessary in treating carcinoma of the skin to begin with a biopsy to determine the amount of malignancy and whether the lesion is of a squamous-cell or basal-cell type, as with a squamous-cell type the associated lymphatics must also be treated. Each case should be individually dealt with according to what conditions are present as the treatment depends largely on the depth, duration, location, and size of the epidermoid carcinoma.

X-rays or radium successfully cure between 70 to 80 per cent of epitheliomas, and it is the preferred method where a slight scar is objectionable. Failures with this method are usually due to insufficient treatment, or to a very prolonged treatment with insufficient dosage which leads to the formation of fibrous tissue embedding some vital cancer cells which later take on new growth and cause recurrences.

If a lesion is small and a resulting small, soft scar is not objectionable, a cure can be uniformly expected by surrounding the lesion with electrodesiccation, a biopsy performed, the epithelioma bed completely destroyed, and this followed by radium application or X-ray therapy

which catches the outlying cells that may not have been destroyed and gives a softer scar. If the biopsy shows squamous-cell carcinoma, then the neighboring lymphatic glands are treated by filtered irradiation, and, according to the location, by high voltage X-rays. The lesion may also be treated by surgical excision followed by irradiation.

Cancers about the eyelids are best treated by radium which has a superior cosmetic result and avoids a scar on the eyelid which would cause retraction and many later annoying symptoms. Cancer of the lower lip is well treated by a wedge-shaped excision surrounding the lesion, with the subsequent placing of deep sutures from the mucosal border closing the operative wedge in the lip, followed by X-ray therapy.

In treating general skin cancer anywhere on the body, the destruction of the lesion by electrocoagulation associated with X-ray therapy where such destruction is practical gives the quickest and practically 100% cures. The resulting scar generally fades almost to invisibility. When the deep tissues are involved, they should be destroyed down to healthy tissue and the area curetted. Cartilage involved by cancer is not cured by irradiation therapy, and here electrocoagulation is valuable if it includes tissue beyond the diseases. When bone is involved, it is best destroyed by electrocoagulation followed by X-ray therapy, but this often causes an osteomyelitis which must be treated by surgery.

Multiple epitheliomas are nearly always of the basal-cell type, and it is usually best to remove as many as possible of these at one time.

During the period from January, 1934, when the Tumor Clinic at the William W. Backus Hospital started, to April, 1938, there were admitted 196 patients with tumors of the skin. Of these 196 patients, 79 were diagnosed as skin cancer, 75 as angioma, and 42 as miscellaneous benign tumors. These were treated as detailed previously by the use of X-ray, radium, surgery, and electrocoagulation. Twenty patients of this group were referred back to their physicians for treatment. Of the 79 cases of skin cancer, 76 cases were treated with a cure of 58 cases or 78%. Of the 75 cases of angioma, 58 cases were treated with a cure of 26 cases or 48%. Of the 42 miscellaneous benign skin tumors, 35 cases were treated with a cure of 28 cases or 90%.

A statistical report of these cases of skin cancer

and other skin tumors treated at the Tumor  
Clinic of this hospital follows:

## RESULTS OF TREATMENT

		Cases	Per Cent
<b>CANCER OF SKIN — 79 Cases</b>			
<b>Jan. 1934 — April, 1938</b>			
Treatment carried to completion.....	60	Living and free from disease.....	58 73%
Treatment partly completed.....	16	Dead from carcinoma.....	2 3%
Treatment refused.....	3	Improved and under treatment.....	14 17%
		Cases not traceable.....	2 3%
		Unimproved (not treated).....	3 4%
Total.....	79	Total.....	79 100%
		Omitting the 5 cases not traceable — or not treated —	74 cases.
		Recovery: 78%	Improved: 19%
			Dead: 3%

## LOCATION AND TREATMENT OF LESIONS

Area	No. Cases	X-ray	Radium	Excised	Electrocoagulation	Referred	Refused
Scalp.....	1			1			
Forehead.....	3	3					
Temple.....	1	1					
Eyelid.....	4	2	1				1
Nose.....	14	9	1		2	1	1
Cheek.....	19	15	1	2		1	
Ear.....	4	3		1			
Upper Lip.....	4	3	1				
Lower Lip.....	8	1		7			
Jaw.....	2	1				1	
Neck.....	11	7	2	1			1
Hand.....	6	4		2			
Back.....	1	1					
Vulva.....	1	1					
Total.....	79	51	6	14	2	3	3

## EXTENT OF DISEASE

	Recoveries	Improved	Unimproved	Dead of Ca.	Total
Local lesion less than 1.5 cm. in diameter.....	31	5	2	0	38
Local lesion more than 1.5 cm. in diameter.....	27	9	1	1	38
Cases with palpable lymph nodes.....	2	0	0	1	3
Total.....	60	14	3	2	79

## COMPARATIVE TREATMENT

Method	No. Cases	Cured	Improved	Unimproved	Dead of Ca.	Not traceable
X-ray.....	51	36	12		1	2
Radium.....	6	6				
Excised.....	14	13	1			
Electrocoagulation.....	2	2				
Referred.....	3	1	1		1	
Refused.....	3			3		
Total.....	79	58	14	3	2	2

(Twelve of the excisions and the two electrocoagulation treatments were followed up post-operatively with X-ray therapy to the area.) (Twenty-five cases had X-ray therapy to the adjoining gland areas.)

## DURATION OF CURES

Time Interval	No. Cases	Per Cent
Well over 3 years.....	12	21%
Well from 2 to 3 years.....	14	24%
Well from 1 to 2 years.....	16	27.5%
Well less than 1 year.....	16	27.5%
Total.....	58	100%



## ANGIOMA OF SKIN—75 Cases

Jan. 1934—April, 1938

Treatment completed.....	28
Treatment partly completed.....	30
Treatment refused.....	17
Total.....	75

## RESULTS OF TREATMENT

	Cases	Per Cent
Living and free from disease.....	26	35%
Dead from angioma.....	1	1%
Improved and under treatment....	25	33%
Cases not traceable.....	4	5%
Unimproved.....	2	2%
Not treated.....	17	24%

Total..... 75 100%

Omitting the 21 cases not traceable or not treated = 54 cases.

Recovery: 48%    Improved: 46%    Unimproved: 4%  
Dead: 2%

## MISCELLANEOUS BENIGN TUMORS OF SKIN

42 Cases

Jan. 1934—April, 1938

	No. Cases	Per cent
Treatment successfully completed.....	28	67%
Unimproved.....	3	7%
Cases not traceable.....	4	9%
Untreated.....	7	17%

Total..... 42 100%

Omitting the 11 cases not traceable or not treated = 31 cases.

Recovery: 90%    Unimproved: 10%

A few of our skin tumor cases will be reviewed in picture form.

1. F.A., a white male, 88 years old, was admitted on September 10, 1935, with a large ulcerated epidermoid carcinoma, 5 cms. in diameter and 2 cms. high, on his neck below his left ear, of 1½ years duration, and with cervical metastases. He received several series of high voltage X-ray therapy and radium element to the lesion and associated lymphatics. He was apparently cured on April 28, 1937, and has been well for about one year.

2. G.J., a white male, 77 years old, was admitted on December 8, 1936, with an ulcerative, low grade, epidermoid carcinoma occupying the vestibule and floor of the left auditory canal, of ten months duration, starting as a small pimple which he kept picking. He received low voltage X-ray and high voltage X-ray to the lesion at various times. He was apparently cured on September 14, 1937, and has been well for about six months.

3. F.G., a white male, 76 years old, was admitted on January 12, 1937, with an ulcerating tumor 1½ cms. in diameter on his left upper eyelid of 16 years duration. A biopsy showed it Basal Cell Carcinoma. He was given radium directly to the lesion on the upper lid with a shield of lead under the lid to protect the eyeball. He was apparently cured on April 13, 1937, and has been well for about one year.

4. W.F., a white male, 64 years old, was admitted on January 20, 1937, with a raw granulating tumor mass on the back of his left hand, 6 cms. in diameter and 2½ cms. thick, and of eight years duration, starting as a small wart. Biopsy showed it Epidermoid Carcinoma, Grade II. He received several series of high voltage X-ray therapy. On June 8, 1937, the lesion was apparently cured, and he has been well for about nine months.

5. H.B., a white female, 78 years old, was admitted on February 2, 1937, with a dark brown tumorous elevated area, 1 x 2 cms. in diameter, on the right side of her nose of six months duration. She received low voltage X-ray to the cancerous lesion. On June 8, 1937, she was pronounced free of malignancy and has been well for nine months.

6. P.M., a white male, 65 years old, admitted on May 25, 1937, with a tumor mass 2 cms. in diameter on the back of his left hand, of three months duration. This was surgically excised and microscopically proved to be Epidermoid Carcinoma, Grade I. He also received a series of high voltage X-ray therapy given in daily doses. On August 13, 1937, the malignancy was cured, and the patient has been well for about nine months.

7. F.B., a white female, 65 years old, was admitted on June 8, 1937, with an epitheliomatous lesion, 6 x 7 mms. in diameter on the right cheek below the eye, covered with a scab, and of one year's duration. She received a series of high voltage X-ray. She was cured on July 27, 1937, and has been well about nine months.

8. R.P., a white male, 73 years old, admitted September 23, 1937, with an irregular, fixed, ulcerated, tumor mass on the right cheek, 10 cms. in diameter and 3 cms. deep, of fifteen years duration. Biopsy showed it Epidermoid Carcinoma, Grade I. He was given several series of high voltage X-ray. He was apparently free of malignancy on March 8, 1938.

9. E.H., a white female, 86 years old, was admitted on January 4, 1938, with keratosis of her face of thirty years duration and carcinomatous ulceration of her nose and cheek. The lesions on her nose and cheek had increased in size and bled often during the last six months. Her cheek lesion was 3 cms. in diameter, and her nose lesion was 1½ cms. in diameter. She received high voltage X-ray to her nose and cheek areas. She was apparently cured on April 12, 1938.

10. P.M., a white male, 63 years old, was admitted March 8, 1938, with an ulcerative, indurated, cystic lesion of the chin about 8 cms. in diameter and 3 cms. high, extending into the floor of the mouth, of three months duration. Biopsy showed Epidermoid Carcinoma, Grade II. There were no palpable glands. He received series of X-ray therapy in divided doses. He was apparently improved on April 12, 1938.

11. M.S., a white male, 70 years old, was admitted March 8, 1938, with an ulcerated swelling of the lower lip, 1½ cms. in diameter, of six weeks duration, caused by smoking a pipe. Biopsy showed it Epidermoid Carcinoma, Grade I. The lesion was surgically removed. The lesion was apparently healed on April 12, 1938, and is to have follow-up X-ray therapy.

(Concluded on Page 476)

# The JOURNAL of The Connecticut State Medical Society

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

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**NEWS.**— Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

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## • Editorials •

### COME, COME, MR. ARNOLD

No one who understands Mr. Thurman Arnold's excellent showmanship or who has seen him stride blithely into any spotlight is at a loss to find his motive for directing the big guns of the Department of Justice at the American Medical Association. The band wagon of medical care occupies an important position in the parade of social reform and it was inevitable that as it passed by Mr. Arnold would hop aboard, pick up a big horn and, for better or worse, start tooting.

No profession is so surrounded by self-imposed restrictions as medicine. These restrictions have developed through centuries of experience and are for the protection of the people, it is always a little difficult for our legal friends to understand this. The American Medical Association is a voluntary organization. Membership in it is not obligatory. When a physician joins it he must perforce subscribe to the rules of behavior that are established. If he does not care to do this, he need not join. If, after becoming a member, he finds the rules interfering with his productive conduct, he is at full liberty to resign or to use his influence to have the rules revised. To call a voluntary organization of this kind a "trust" and a combination in restraint of trade seems a little far fetched, and if this is the best Mr. Arnold can do in his great trust busting campaign, it might be better for him to return to New Haven where he has enjoyed some reputation as a colorful teacher of law.

If this was just a smart gesture on Mr. Arnold's part, it might be condoned, but the whole affair is unfortunate and will prove a hindrance. There is little question that the distribution and compensation for medical care is inadequate and can be improved, and the groundwork for necessary changes has been rapidly laid. It is a problem in which we are all vitally interested, physicians and public alike, its solution will come by honest, unselfish thinking, political skulduggery will not help.



## THE DOCTOR, THE LAWYER AND THE PATIENT

Medicine and Law concern the individual. Both have problems in common. Today, more than ever, there is need for an increasing understanding between the two professions. Attorney John Hamilton King, in a recent address before the Windham County Medical Association, sounded a note of challenge to the medical profession when he asked for more cooperation from physicians who are witnesses of automobile accidents. To avoid a summons to court may be clever and evidence of an ability to make a good get-away but it often leaves an innocent patient bereft of his chances to collect just damages.

Of interest to the medical profession should be a statement made by Attorney King on the same occasion, to the effect that, although there is no law that makes it mandatory, the ethics of the legal profession demand that the physician be properly recompensed by the attorney for services in cases of litigation. Failure to live up to this unwritten law may be just cause for complaint to the County Bar Association of which the attorney is a member.

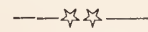
To clarify further the haziness enshrouding some of the medico-legal relationships, it is of interest to note that a physician is not privileged to disclose to an insurance company medical facts in his possession pertaining to the insured, except upon the written permission of his patient. We as a profession are prone to forget some of the niceties involved in our responsibilities to our patient and in so doing we jeopardize the chances for a just and equitable settlement.

During the past decade much has been accomplished to aid the physician and the lawyer to understand each other better. Still more is being done today with this same purpose in mind. It is good to realize that there is a common ground on which the two professions can meet. We have not always been the most approachable but we are learning and to our surprise we find the lawyer a good friend.

Elsewhere in this issue of the Journal appears a very clear cut, frank discussion on "Physicians and Lawyers" by the Editor of the Connecticut Bar Journal. The lawyer has just cause for complaint because of the physician's frequent use of lengthy, mystifying medical terms. It is true

many physicians dislike Court attendance and do all in their power to avoid such. Once in Court, however, there is much good in Editor Cohen's suggestion that physicians, because of possible disagreement in diagnosis, recognize other possible diagnoses and state their reasons for their own views. Thus may be avoided much unpleasant cross-examination and an otherwise confused jury may be able to reach a verdict with greater ease and intelligence.

To quote our legal friend, the Connecticut Bar Journal Editor: "It is high time for the members of these two learned professions to consider each other's problems and aims, bring about a better mutual understanding and thus eventually lead to a modification of the present attitude of each profession to the other."



## A PROGRAM OF CANCER EDUCATION

The modern treatment of malignant disease may be said to be confined to surgery, radium, and X-ray. Used singly, or in judicious combinations, abundant evidence is at hand which indicates the profession has available potent and effective measures to combat cancer, their efficacy, however, depending largely upon the stage of the disease at which they are employed.

The past few years have brought such striking advances in our knowledge of the technical considerations involved in radical extirpation of malignant tumors, and in our understanding of the various aspects of irradiation, it may be unwise to anticipate any further great reduction in cancer mortality rates along these lines.

It seems logical to assume, at this time, unless some new approach to the entire problem of cancer therapy is developed, our opportunity for improving mortality statistics lies along two paths: first, to train a greater number of men to become skilled in the surgery and radiation of malignant disease; and second, to devote ourselves to ways and means by which we can substantially increase the percentage of early diagnoses.

This latter can be accomplished only by an intensive educational campaign which must be carried not only to the lay public, but also to every physician, irrespective of his specialty.

Having this in mind, the Connecticut State Tumor Committee, as part of its educational

program, plans during the coming year to submit to The Journal articles on cancer in various parts of the body. These articles will be written by some of the leading members of the profession in this state and will deal chiefly with the earliest signs and symptoms of cancer. The article appearing in this issue on "Cancer of the Skin" begins the series. If the response to these articles seems favorable, their publication subsequently in a handbook has been visualized.



### 1938 CLINICAL CONGRESS

The July issue of the Journal contained the program for this year's Clinical Congress. By the time this issue reaches its subscribers they will have also received their copy of the complete program together with a registration card. The committee feels that this year's program promises an even better congress in every way than any preceding one. It will be of material assistance to the committee if those who expect to attend will fill out and send in their registration card as early as possible.



### AMERICAN MEDICO-LEGAL ASSOCIATION

Announcement has been received of the establishment of the American Medico-Legal Association with headquarters in Boston. The Association purposes to publish monthly the American Journal of Medical Jurisprudence and to assume leadership "in educational movements which convey authentic information on the legal responsibilities and rights of medical, legal and dental members of the profession." Research in the field of legal medicine, an active interest in all medico-legal matters with an annual session for presentation of papers are part of the new association's activities.



### CANCER IN HARTFORD

The Hartford Board of Health has published a statistical analysis of a survey of cancer mortality based on 2,905 original death certificates for the seventeen year period, 1920-1936. Comparison is made with figures obtained from a similar survey in New Haven. Many interesting facts are revealed. There is a significant increase in the adjusted cancer mortality rate, the disease taking its greatest toll among the foreign born population.

### NOTED LECTURER AT CLINICAL CONGRESS

Dr. Philip Manson-Bahr of the London School of Tropical Medicine has consented to be present and take part in the round-table discussion on Chronic Ulcerative Colitis to be held on the afternoon of September 22nd during the Clinical Congress in New Haven. Dr. Manson-Bahr is Senior Physician to the Hospital for Tropical Diseases and Director of Clinical Tropical Medicine in the London School of Hygiene and Tropical Medicine. The Clinical Congress is highly honored and particularly fortunate at this time because Professor Manson-Bahr is one of the most outstanding men in the field of tropical medicine. Not only is he the son-in-law of the late Sir Patrick Manson who may be considered the "father" of tropical medicine in England, but one of the pioneers of research especially in the field of the dysenteries. He was one of the earliest to recognize and call attention to the fact that a differential diagnosis between amebic and bacillary dysentery could be made by microscopic examination of the bowel discharges in cases of diarrhea. This work which was first done in 1912 does not only still stand, but has recently been confirmed and extended. Dr. Manson-Bahr has made many other outstanding contributions to tropical medicine but one of his most outstanding is his editorship of Manson's Tropical Diseases which is considered throughout the world as the leading text and reference work in the field. Dr. Manson-Bahr is without equal as a lecturer, and his coming brings to our rostrum the world's leading authority on amebic and bacillary dysentery.

Dr. Manson-Bahr arrived on the Queen Mary on August 8th and will be in this country until the end of September. During that time he is to give the Mayo Clinic Lecture at Rochester, Minnesota, the Theobald Smith-Walter Reed Lecture at Washington, D. C., and the lecture of the evening in connection with the symposium on Chronic Ulcerative Colitis which is being presented by the New York Post-Graduate Medical School and Hospital on September 23. In addition, he is to be the guest of honor at Tulane University in New Orleans, Johns Hopkins University, Baltimore, and Harvard Medical School. We welcome Dr. Philip Manson-Bahr to the Connecticut State Clinical Congress at New Haven.



# From the Secretary's Office

CREIGHTON BARKER, M.D.

258 Church Street

New Haven

## Committee to Conduct Survey of Medical Service

The Chairman of the Council has appointed a committee to conduct the survey of medical service in Connecticut that was recommended by the House of Delegates and approved by the Council at its July meeting. It is contemplated that this Committee will be organized by the end of the summer and the study started in the early autumn.

## Governor's Conference on Prepaid Hospital Service

On August 8, a conference was called by Governor Cross to discuss the subject of prepaid hospital service. There were about eighty persons present representing The Connecticut State Hospital Association, The Connecticut State Medical Society, boards of directors of hospitals, the Commissioner of Insurance in the State of Connecticut and interested laymen. Dr. Wilmar M. Allen, Superintendent of the Hartford Hospital, was asked to preside by the Governor and the Secretary of the State Medical Society was elected the secretary of the conference. The discussion was a productive one and various phases of prepaid hospital service were presented. The principle points of discussion were: 1, the extension of prepaid hospital service to all residents of the State; 2, proper methods of organization on a non-profit sharing basis; 3, the necessity of supervision by the State Insurance Department; 4, the formulation of proper legislation.

A vote was passed requesting the Governor to appoint a committee representative of various groups in the State to inquire into each of these subjects and to report back to the Governor's conference group at a latter date. The Governor agreed to appoint such a committee and sug-

gested that it would consist of about twelve members representing the State Medical Society, hospital administrators, executives of existing pre-paid hospital service organizations and the lay public.

This is a subject in which The Connecticut State Medical Society has long been interested and its continuous cooperation in the project is assured. Any members of the Society who have suggestions or comments to make upon the subject that should be presented to the conference are invited to communicate them to the Secretary's office.

Dr. Wilmar M. Allen and Dr. Creighton Barker were named the permanent chairman and secretary of the conference group.

## 1939 Annual Meeting

Plans are already under way for the 1939 Annual Meeting of the State Medical Society that will be held at the Hotel Taft in New Haven. The exact dates of the convention have not been set and will not be until after the dates for the Annual Meeting of the American Medical Association in St. Louis have been determined. The scientific program of the meeting will be arranged by the Society's new Program Committee, Dr. Daniel C. Patterson, Bridgeport, Chairman; A. Nowell Creadick, New Haven and G. Gardiner Russell, Hartford.

## Accounting System

A complete and detailed system for the accounting of the Society's funds has recently been installed by Hadfield, Rothwell, Soule & Coates, certified public accountants, of Hartford. The books of account will be kept by the personnel in the Executive Secretary's office under the direction of the Treasurer and disbursements made under an approved voucher system.

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## SECTION ON Orthopedic Surgery

The Connecticut Fracture Committee of the American College of Surgeons has arranged the following fracture program in conjunction with the Clinical Congress at New Haven:

September 20

2:00 P.M. Mobilization in Fracture Treatment, Dr. Merrill K. Lindsay.

3:00 P.M., Immobilization and the Use of Plaster Splints in the Treatment of Fractures, Dr. Robert M. Yergason, Hartford, Conn.

September 21

2:00 P.M., Traction in the Treatment of Fractures, Dr. Charles W. Goff, Hartford, Conn.

3:00 P.M., Fractures of the Ankle and Wrist, Dr. Arthur S. Griswold, Bridgeport, Conn.

September 22

2:00 P.M., Traction in the Treatment of Fractures, Dr. Charles W. Goff, Hartford, Conn.

3:00 P.M., Operative Treatment of Fractures, Dr. J. L. Vickers, Greenwich, Conn.

### Dr. A. Bruce Gill, Guest Speaker

The Orthopedic Section will hold a dinner on the evening of September 21, place to be announced at the Seminar. Dr. A. Bruce Gill, distinguished Orthopedist from the University of Pennsylvania will deliver a paper on "Operative Treatment of Dislocation of the Hip". Members and their guests are invited.

### Are You Helping?

How many ambulances in your community are equipped with traction splints? How many physicians are carrying traction splints in their automobiles? Accidents will happen, but let's keep them accidents and not fatalities. A traction splint can be worth its weight in gold.

## SPECIAL MEETING

### A. M. A. House of Delegates

As we go to press notice has reached the Editor's desk of a special meeting of the House of Delegates of the American Medical Association called for September 16 at Chicago. This meeting is being called by the Speaker of the House in compliance with an official request of members of the Board of Trustees.

According to the call for the meeting the business to be transacted at this Special Session shall be limited to the consideration of the national health program submitted to the National Health Conference recently held in Washington and to such other matters as may be submitted to the House of Delegates by the Board of Trustees. It is planned that the House shall remain in session, recessing from day to day, until its deliberations are concluded.

Comment on this move by the Board of Trustees of the American Medical Association may be limited at this time to an expression of hearty approval that the Board has seen fit to take such action at this time. Organized medicine realizes its obligation to crystalize its plans for action in view of rapid developments at Washington in the interest of national health.

—☆☆—

### HAVE YOU REGISTERED YET FOR THE CLINICAL CONGRESS?

It will aid the Committee materially if you do so at once. This promises to be the best Clinical Congress on record.

—☆☆—

### LACK OPPORTUNITIES FOR TRAINING

The insufficient opportunities afforded the intern in his usual one year in the hospital to gain actual practice in surgery have long been recognized, and the College in 1933 appointed a Committee on Graduate Training for Surgery to study the subject. A survey has been made of the opportunities now available and a plan is being formulated in cooperation with other surgical groups to increase the facilities for graduate training.—*Bull. Amer. Coll. Surg.*, Sept., 1937.

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# 146th Annual Meeting

## Proceedings - House of Delegates

(Continued from Volume II, No. 8)

### REPORT OF THE COMMITTEE ON THE CLINICAL CONGRESS FOR THE YEAR 1937

The Thirteenth Clinical Congress of the Connecticut State Medical Society was held at New Haven on September 21, 22, 23, 1938. During the forenoons on these three days twelve papers were presented by invited speakers. In the afternoons of the session there were eight bedside clinics, three panel discussions and nine symposia. During the evenings, following the dinners for the special sections, there were nine sectional meetings. The number of different subjects considered and the comprehensive type of presentation of material included an unusually large portion of the field of medicine.

The total registration, 694, was the largest in the history of the Congress. Of the total number of registrants,

610 (88%) were from Connecticut and of these, 493 (71%) were members of the Connecticut State Medical Society. Eighty-four physicians who registered were from places outside this State. At the Thirteenth Congress 165 (23.8%) registrants were new, and of these, 119 (19.5%) were new registrants from Connecticut. While the Congress gained new members it retained the interest of 491 (80.5%) physicians of Connecticut who had attended one or more of the Congresses of past years. Of all the registrants for 1936, 63.5 per cent returned in 1937. The Congress thus appears to have a substantial body of constant patrons and a variable, but increasing group of new registrants.

Further detailed analysis of the distribution of registrants is as follows:

	Number	Percentage of Registrants	Percentage of Membership in Respective Societies
Total Registration	694		
From Connecticut	610	88.	30.9 (State Medical Society)
From Fairfield County	101	14.6	24.6 (County Society)
From Hartford County	135	19.5	24.7 (County Society)
From Litchfield County	27	3.9	31.3 (County Society)
From Middlesex County	22	3.2	29.6 (County Society)
From New Haven County	272	39.1	43.2 (County Society)
From New London County	37	5.4	24.1 (County Society)
From Tolland County	4	0.6	16.6 (County Society)
From Windham County	12	1.7	32.4 (County Society)
From Outside of State	84	12.	
From California	1	0.15	
From Florida	2	0.3	
From Maine	4	0.6	
From Maryland	2	0.3	
From Massachusetts	29	4.1	
From New Hampshire	1	0.15	
From New Jersey	5	0.7	
From New York	12	1.7	
From Rhode Island	23	3.3	
From Vermont	3	0.4	
From Virginia	1	0.15	
From England	1	0.15	

The report of the Treasurer shows that the receipts of the Thirteenth Congress were \$1,672.27 and the total disbursements were \$1,704.35. The small deficit, amounting to \$32.08, was paid from reserve funds. On January 1, 1938, the assets of the Clinical Congress in the form of bank deposits amounted to \$3,382.44.

The service rendered by the Journal of the Connecticut State Medical Society in publishing announcements, details of programs, editorial comment, reports of meetings

and papers presented at the sessions was again of great value to the Congress. The Committee thanks the editor for his cordial and effective cooperation.

The increasing attendance and the distribution of registrants are satisfactory evidence that the Clinical Congress provides something which physicians want and to which they are willing to devote time taken from practice. The Congress has attracted attention outside the State as one of the successful types of educational enter-

prise conducted by a State Medical Society. Following Dr. Barker's report on the history, aims and methods of the Clinical Congress, presented at the Annual Conference of Secretaries of State Medical Associations at Chicago in November 1937, the Chairman has received a number of inquiries concerning the Congress and has found that it is now well known among those who are surveying the opportunities for various types of "post-graduate courses" offered to physicians. The Clinical Congress is an achievement of which Connecticut physicians may well be proud.

The intimate relations between the Congress and the Yale University School of Medicine have continued to be mutually advantageous. The School feels privileged to assist the Congress and does so by making available as much of its facilities as are needed. Through this association and cooperative effort the School has an opportunity to express its regard for the welfare of the State Medical Society and its desire to do whatever it can to be of service to physicians of Connecticut.

Shortly after the close of one Clinical Congress a beginning is made on plans for the next meeting. By this time a program for the Fourteenth Clinical Congress, including new features, is almost complete and the Committee looks forward with interest to the coming Congress which will be held at New Haven on September 20, 21, 22, 1938.

To name all the members of the Committee and Sub-Committees of the Clinical Congress would present interesting evidence of the spread of interest and responsibility for this project among physicians in the State. To give the details of services rendered would emphasize this point and also focus attention on a few particularly hard-working, public-spirited physicians who take care of many details of the program and management. As there is not space for either account in this report, the Chairman wishes to acknowledge their services in this general statement and to thank them sincerely.

Respectfully submitted,  
S. BAYNE-JONES, Chairman,  
Committee on the Clinical Congress.

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#### REPORT OF THE TUMOR COMMITTEE

The State Tumor Committee has gradually developed a large organization to solve its various problems for the prevention and cure of cancer in the state of Connecticut. It is thought wise at this time to inform the State Society concerning this organization, the personnel of the various committees and the work that is being done and has been accomplished.

The **Tumor Committee** appointed two active committees to work directly under it; the Publicity Committee and the Scientific Committee.

The Chairman of the **Publicity Committee** is Dr. Edward J. Ottenheimer and the other members are as follows:

Dr. Carl Johnson  
Dr. Stanley Osborn  
Dr. William W. Dinsmore  
Mr. Herbert Hirsche  
Dr. Charles L. Larkin, ex-officio  
Dr. Philip G. McLellan, ex-officio

This committee has been busy working cooperatively

with the Division of Cancer Research of the State Department of Health, sending out bulletins to the doctors, writing newspaper articles, arranging for public speakers and collecting data for a comprehensive handbook on cancer which it is hoped will be used by all the physicians in the state as a handy reference for up-to-date treatment and diagnosis.

The **Scientific Committee** under the chairmanship of Dr. Ellwood C. Weise consists of the following:

Dr. W. M. Allen  
Dr. W. B. Walker  
Dr. D. J. Roberts  
Dr. K. K. Kinney  
Dr. W. A. Sunderland  
Dr. M. H. Griswold  
Dr. Charles L. Larkin, ex-officio  
Dr. P. G. McLellan, ex-officio

This committee is responsible for the formation of the various Hospital Tumor Clinics around the state and it arranges the four meetings of the Association of Connecticut Hospital Tumor Clinics which are held in four different clinics during the year. This committee has also under its supervision the courses on cancer which are to be given at the meeting of the Connecticut Clinical Congress.

The **Association of Connecticut Hospital Tumor Clinics** which is made up of all the hospital Tumor Clinics in the state functions under the chairmanship of Dr. C. L. Larkin. Four meetings have been held this year at Grace Hospital in New Haven, Norwalk General Hospital in Norwalk, St. Francis Hospital in Hartford, and William W. Backus Hospital in Norwich.

The sub-committees of the Association of Connecticut Hospital Tumor Clinics are Therapy Committee, Record Committee and Pathology Committee.

The **Therapy Committee** consists of Dr. A. W. Oughterson, Chairman and:

Dr. D. J. Roberts  
Dr. B. M. Parmelee  
Dr. E. J. Ottenheimer  
Dr. E. H. Kirschbaum

This committee is working with the members of the Publicity Committee to develop standard methods of treatment for the more common cancerous lesions. Dr. Miller and his committee have been assigned cancer of the Cervix and Fundus Uteri and Dr. Hugh Wilson and his committee, Cancer of the Breast. These two committees have already submitted preliminary reports which are to be submitted to the various Tumor Clinics for their approval. When such approval is obtained each clinic will be asked to treat these cancerous lesions according to these standardized plans.

The **Record Committee** under the chairmanship of Dr. Philip McLellan has been busy working in cooperation with Mr. Herbert Hirsche of the Division of Cancer Research in the State Department of Health and with the members of the Therapy Committee to develop a more comprehensive standard record which can be used as a punch card system so that the records can be photographed and kept in a central record room at the State Department of Health. This committee consists of the following:

Dr. Carl Johnson  
Dr. Thomas J. Pascal  
Mr. Herbert Hirsche



**The Pathology Committee** consists of the pathologists from all the Tumor Clinics in the state under the chairmanship of Dr. L. P. Hastings. These men meet at frequent intervals during the winter months in New Haven. They believe that a thoroughly comprehensive standardized nomenclature of pathology can be agreed upon and are working towards this end.

A new committee was appointed by the Council of the State Medical Society which is called the **Central Hospital Committee** and consists of the following:

Dr. James Douglas Gold, Bridgeport  
 Dr. Charles L. Larkin, Waterbury  
 Dr. Francis Sutherland, Torrington  
 Dr. Philip G. McLellan, Hartford  
 Dr. Edward J. Ottenheimer, Willimantic  
 Dr. Stanley H. Osborn, Hartford  
 Dr. Wilmar M. Allen, Hartford  
 Dr. Stanhope Bayne-Jones, New Haven  
 Dr. Kenneth K. Kinney, Willimantic  
 Mr. Herbert Hirsche, State Department of Health  
 Prof. Ira V. Hiscock, Dept. Public Health, Yale Univ.  
 Mrs. Doris H. McBee, Rep. 1937 Gen. Assembly, South Willington  
 Dr. William F. Verdi, New Haven  
 Dr. Joseph H. Howard, Bridgeport  
 Dr. C. J. McCormack, Hartford

The first meeting of this committee was held in the Graduates Club in New Haven on February 3rd, 1938. Dr. Charles L. Larkin, was elected Chairman and Mr. Herbert Hirsche, Secretary.

**The Executive Committee** consists of:

Dr. Philip G. McLellan  
 Dr. E. J. Ottenheimer  
 Prof. Ira V. Hiscock  
 Mr. Herbert Hirsche  
 Dr. Charles L. Larkin

**The Fact Finding Committee** under the chairmanship of Mr. Herbert Hirsche consists of:

Prof. Ira V. Hiscock  
 Dr. John Watkins  
 Dr. Wilmar M. Allen

**The Policy and Organization Committee** is under the chairmanship of Dr. Stanhope Bayne-Jones and consists of the following:

Mrs. Doris McBee  
 Dr. Stanley H. Osborn  
 Dr. Ralph E. Kendall

These committees are trying to find out the actual cancer situation here in Connecticut, how many cancer cases there are, how many of these are indigent, how much it costs to adequately diagnose and treat these patients and what percentage of the patients can afford to pay these costs. The Policy and Organization Committee is making a survey of the various methods which are now in vogue in other states for handling the cancer problem. After studying these methods and after receiving the reports from the Fact Finding Committee an attempt will be made to draw proper plans for the handling of cancer cases here in Connecticut. We hope to be able to submit such plans at the end of another year.

Respectfully submitted,

CHARLES L. LARKIN,  
 Chairman, State Tumor Committee

## REPORT OF THE COMMITTEE ON PUBLIC HEALTH

To the President, Council and House of Delegates of the Connecticut State Medical Society:

Gentlemen:

The Committee has held three meetings and the Sub-Committees have held several sessions.

The following items have been considered:

- I. Federal and State Projects under Social Security grants.
  - (A) Maternal Health Program.
  - (B) Child Health Program.
    - (1) Refresher Courses.
  - (C) Crippled Children Program.
- II. Venereal Disease Control Program.
- III. Public Health Education.
  - Health Education Films.
- IV. Review of certain regulations of the Sanitary Code.

### I. Federal and State Projects under Social Security Grants.

- (A) Maternal Health Program.

The results of the Maternal Hygiene Project as carried on in Windham County have been carefully considered and guided by the Obstetrical Sub-Committee.

It was deemed advisable to continue this project stressing the importance of Public Health Nursing and approving of the proposed policy of the State Department of Health in supplying nursing service at the time of delivery.

A state-wide program for consultation on problem maternity cases for families unable to pay consultants was arranged by this Sub-Committee and the State Department of Health.

- (B) Child Health Program.

Subjects discussed concerning the Child Hygiene Program of the State Department of Health were:

- (1) Eligibility of physicians for service in conferences.
- (2) Eligibility of clientele with special reference to giving of formulae and to immunizations.
- (3) General eligibility of clientele for conferences.

(1) It was the consensus of opinion of the Committee that only members of the State Society should serve as conference physicians (with the exception of those physicians whose residence is too short to join, but are qualified otherwise.) It was also recommended that physicians who are selected for these conferences and who are not familiar with methods visit certain organized conferences to observe. The recommendations are not to be retroactive. Appointments should be made annually. That in those communities where two or more physicians are willing to serve, it was recommended that each give continuous service for at least six months rather than too frequent rotation.

(2) In reference to the giving of formulae and immunizations to clientele who are not able to pay private physicians for this service, it was recommended that these procedures be carried out only after consultation with the family physician.

(3) The eligibility for admission to the Child Health Conference has been a source of much discussion. The

question of eligibility was considered to be the responsibility of the local nurse or social worker.

(1) Refresher Courses.

The Federal Program calls for the presenting to physicians courses in obstetric and pediatric procedures with special emphasis on the preventive health measures. These have been attempted as stated in previous reports in Windham, Tolland and Litchfield Counties. Your Committee feels that the manner of presenting these courses has not been entirely satisfactory, that more could be accomplished and the intent of the program carried out if arrangements for these lectures, talks or demonstrations could be made by either local or county societies and carried on along symposia lines. The Public Health Committee through a Sub-Committee would act as a clearing house furnishing a list of subjects and well qualified speakers.

(C) Crippled Children Program.

The Crippled Children Program carried on by means of State and Federal grants is now under way. Your Committee has participated in the arranging, and has critically reviewed the program. Much of this has been done by a Sub-Committee serving as member of the Commissioner's Technical Committee. Selection of clinic orthopedic surgeons, designation of locations for diagnostic clinics, of treatment hospitals, review and approval of rates, of clerical forms, selection of convalescent centers, and other details were considered. The salary of the senior orthopedic surgeons also was fixed.

In a circular to physicians the eligibility of children for care is stated. I quote from Circular Letter No. 12 from the State Department of Health to local physicians:

"Primary consideration is to be given to indigent crippled who are not at present receiving needed medical care from any other source. No child will be accepted for treatment whose parents can afford to pay for such treatment privately. In order to insure that this provision is strictly observed, we shall require from each patient treated at the clinic a note from a local physician stating that in the physician's opinion the patient is deserving of aid from the Division of Crippled Children. A note will not be required from patients whose physicians have already recommended them to us by way of the enclosed card or by any other direct means. Unless otherwise stated, the physician's recommendation of any patient to the Division of Crippled Children implies his willingness to be relieved of any further clinical or financial connection with the case."

## II. Venereal Disease Control Program.

A Sub-Committee, comprised of representatives from all counties, arranged for the following:

(a) Presenting to the respective county societies the problem and important points in its control.

(b) Presenting to the members of the State Society through the medium of the State Journal pertinent articles on syphilis control.

(c) The conducting of a one day prevalence study.

All of the foregoing activities have been and are being conducted at the present time.

Some very interesting data have been compiled and on further analysis should be well worth publishing.

Some of this material has already appeared in the State Journal.

## III. Public Health Education.

Your Committee has been interested in the showing of two films dealing with Public Health Education.

(1) THE BIRTH OF A BABY, sponsored by the American Committee on Maternal Welfare.

(2) A HAPPY DAY (a Pneumonia story) presented by the United States Public Health Service and a leading Life Insurance Company.

THE BIRTH OF A BABY film was shown in Stamford on Sunday, August 15, 1937, through the courtesy of Dr. O. Stringfield of this Committee. Invitations were sent to a selected group. The comments of this group were very favorable. It was again shown to the members of our Society at the last Clinical Congress.

The film, however, has not met with the approval for general showing by motion picture censors of many states.

The film, A HAPPY DAY, was referred to the Committee by the Commissioner of Health; the sponsors were looking as had been done elsewhere for an approval in the form of a trailer (a short talk at the end of the film) by some medical authority in the State. On account of the partly commercial sponsorship, it was referred from the Commissioner to the Committee, to the Council, and back to the Committee. By this time, the pneumonia season being about over the matter was dropped. This picture was shown, however, in various parts of the State. It is a story about modern pneumonia treatment and control, stressing early diagnosis, good nursing, oxygen and especially serum therapy. The members of the Committee who were familiar with this film felt that there were no objectionable features due to part commercial sponsorship in this case, and that such sponsorship should not militate against the show of health education films.

## IV. Review of Certain Regulations of the Sanitary Code.

The Committee has reviewed the Sanitary Code regulations regarding licensing of maternity hospitals. Certain suggestions concerning these regulations were made to the Commissioner.

It must be realized in this connection that the Committee has felt a serious responsibility in reviewing regulations of the Sanitary Code, as well as legislation, and proposed legislative action concerning public health. In these efforts, the Committee has endeavored to raise public health standards without encroaching on the just rights of the individual practitioner. This is very difficult and requires the whole-hearted support of the Council and the entire Society.

The Committee makes the following recommendations:

(1) That the Child and Maternal Health and the Crippled Children programs of the State Department of Health be approved and be continued.

(a) That the Maternal Health Project in Windham County be continued.

(2) That the physicians of the State be informed through the medium of the Journal, that it is their duty to have a serological test for syphilis done on their pregnant patients as early in pregnancy as is possible. That it is also their duty to take blood pressure readings and do urine analyses at frequent intervals according to modern standards.



The Committee is strongly of the opinion that these procedures should be incorporated as a regulation in the State Sanitary Code. The Commissioner of Health should have the support of the State Society in requesting the Public Health Council to do this.

- (3) That the Venereal Disease Control Program Sub-Committee be continued.
- (4) That the Sub-Committee on the emergency handling of accidents be continued, integrating its work with the State Committee on Fractures of the American College of Surgeons and other agencies concerned.
- (5) That an adequate appropriation be made for biologics from the State and the proper State agency be informed of this action.
- (6) That the next Committee on Public Health seriously consider and make recommendations on the following items which have been brought to the attention of the present Committee, one at least of which was considered and recommended by the Re-Organization Committee of the last legislature and the present State Legislative Council.
- (7) That all milk, food and drug inspections come under the jurisdiction of the State Department of Health.
- (8) That the health program and the standards of health examination procedures, in the schools of the State, be carefully reviewed with the idea of developing a more practical state-wide program.

#### Public Health Education Program

Your Committee has had referred to it matters concerning various phases of the broad field of Public Health Education and earnestly hope that your new Committee will develop this aspect of its function.

Acknowledgement for hearty cooperation and support is made to the members of the Committee, to the Sub-Committees, to the Executive Secretary of the Society and his staff and to the Commissioner of Health and his staff.

Respectfully submitted,  
JOSEPH I. LINDE, M.D., Chairman,  
Committee on Public Health.



#### REPORT OF THE COMMITTEE ON MEDICAL EXPERT TESTIMONY

The Committee begs to submit the following report:

Since our last report, the Committee has continued to hold meetings and has had further conferences with the Special Committee of the State Bar Association. We have also communicated with the Bureau of Legal Medicine and Legislation of the American Medical Association and with numerous physicians and attorneys.

At one meeting with the Committee of the State Bar Association, the "Uniform Expert Testimony Act" drafted by the National Conference of Commissioners on Uniform State Laws, was carefully considered. No final proposed statute for Connecticut has been evolved to date, but it is the opinion of the Committee that such a statute may be drafted before the 1939 meeting of the Legislature.

Attached to this report is a copy of an abstract of an address by John Kirkland Clark, Esq., of the New York Bar regarding expert medical testimony.\* We also desire to quote a paragraph contained in a recent letter from William C. Woodward, M.D., L.L.M., Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, in which Dr. Woodward states:

"Personally, I believe that it would be a good thing to find out how existing laws work if properly enforced, before asking for new legislation, but in that respect my voice seems as a voice crying in the wilderness. If a judge who is called on to determine the qualifications of a witness who is proffered as an expert witness would only take his time in making the determination and insist on adequate evidence of real expert knowledge and experience, the trouble would be greatly reduced. If lawyers felt a personal responsibility for the qualifications of those whom they undertake to introduce as expert witnesses, and if the court held them accountable for say the exercise of due care in the introduction of such witnesses, lawyers would be more careful. If a State is one in which it has been held that a court has not the right on its own motion or on the motion of one of the parties to appoint expert witnesses, then it might be desirable to procure authority for the court to do so, but if the court already has that power, no legislation would seem to be necessary even here."

At this time the Committee desires to recommend: That the Connecticut State Medical Society recommend to the State Bar Association of Connecticut that judges and lawyers give more careful consideration to the qualifications of witnesses proffered as expert witnesses.

Respectfully submitted,  
OTTO G. WIEDMAN, M.D., Chairman.



#### REPORT OF THE COMMITTEE ON COOPERATION WITH THE YALE UNIVERSITY SCHOOL OF MEDICINE

Mr. President and Gentlemen of the House of Delegates:

Two meetings were held by this Committee with full attendance at both.

At the November meeting there was a brief discussion of the Principles and Proposals submitted by the Committee of Physicians. At that time Dr. Bayne-Jones, Dean of the Medical School stated that there was no official participation of his Committee or of the New Haven Hospital and the members of the faculty who had signed the Proposals were acting solely as individuals.

There was an informal discussion of the contract form for prepaid hospital service in anticipation of an endeavor of The Connecticut State Medical Society and the Connecticut State Hospital Association to prepare a basic contract for prepaid hospital service plan that may operate within the State.

It was voted that the opportunities provided by the Medical School and the New Haven Hospital be published in the Society's Journal.

At the March meeting Dr. Bayne-Jones, Dean of the Medical School, explained the functioning, financial status and facilities of the Department of Psychiatry at the Institute of Human Relations, and the School Committee

\*Available on request. Not printed here.

was invited to submit an article on the Department and Clinic of Psychiatry for publication in the Journal.

Two complaints were brought before the Committee and upon investigation by the School Committee it was the unanimous opinion of both Committees that there was no basis for complaint.

Again the Chairman of the State Committee asked, knowing the feeling of Dean Bayne-Jones that it is desirable, that the joint Committee meetings be continued.

Respectfully submitted,  
JAMES DOUGLAS GOLD, M.D.

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#### REPORT OF THE COMMITTEE TO REVISE THE BY-LAWS OF THE SOCIETY

Mr. President and Members of the House of Delegates:

The Committee appointed to review and revise the By-Laws of the Society consisting of the following members: Hugh B. Campbell, Chairman; James R. Miller, Creighton Barker, Berkeley M. Parmelee, and W. Bradford Walker, has met a number of times during the year and is in the process of studying the By-Laws of the Society so that finally recommendations can be made that will make the By-Laws a useful working code for the government of the Society. At this time the Committee is recommending a few basic changes in the By-Laws which are published in the agenda for this meeting. It is contemplated that during the coming year other changes and additions will be recommended.

Respectfully submitted,  
HUGH B. CAMPBELL, Chairman

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#### REPORT OF THE COMMITTEE ON NARCOTIC DRUG ADDICTION

Mr. President and Gentlemen of the House of Delegates:

The Committee on Narcotic Drug Addiction has had one meeting during the past year. At this meeting reports were given by Dr. Millard Knowlton, Bureau of Preventable Diseases, State Department of Health and Arthur J. Rivard, Division of Narcotics.

The following actions were taken:

VOTED to recommend that an act be introduced to the effect that no preparation which contains opium, coca leaves, cannabis indica or their salts or derivatives be sold except by a registered pharmacy.

This recommendation is based upon the reported abuse of paregoric and patent and proprietary medicinal compounds sold to the public in package stores as permitted in the laws relating to pharmacy and under the exemption clause of the Uniform Narcotic Drug Act.

VOTED that it is the opinion of this Committee that narcotic addicts and alcoholic inebriates should be segregated from each other and from insane patients and treated in an institution properly equipped and staffed for their care and rehabilitation.

Your Committee continues to believe that the laws governing the commitment of narcotic addicts are far from satisfactory. You will recall that in previous reports this Committee has postponed recommendations because of possible reorganization of the State Institutions. Now, another body is preparing amendments for submission

to the next legislature and this Committee thinks that the Connecticut State Medical Society should be prepared to support these amendments.

The Narcotic Committee has continued to study proposed legislation to control the improper use of barbiturates and other hypnotic and dangerous drugs. Acts designed to restrict the sale of these drugs to the prescription of a physician were introduced at the last two sessions of the legislature and failed of passage. New York City and some nearby states have such laws. This Committee now is conferring with members of the Connecticut Pharmaceutical Association regarding the attitudes. Although we are aware of the universal abuse of these drugs by the laity we believe there is considerable ground for difference of opinion as to the desirability of legislation to control their sale. Therefore, the Committee requests an expression of opinion by the House of Delegates as to the need in Connecticut of such legislation.

Respectfully submitted,  
ARTHUR B. DAYTON, Chairman.

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#### REPORT OF COMMITTEE OF TWENTY

This Committee was appointed by the Council, pursuant to a vote of the Special Meeting of the House of Delegates held January 19, 1938, and was instructed to set up a platform covering the principles which should govern the practice of medicine in this State. The delegates to the Special Meeting also suggested that after the report of the Committee had been submitted to the House of Delegates at the annual meeting in May, 1938, it might be desirable to transmit it to the House of Delegates of the American Medical Association at its meeting in San Francisco in June, 1938. This report is believed to fairly represent the majority opinion of the Committee. Where members have dissented from this opinion their dissenting opinions are appended to the report.

Your Committee has endeavored to formulate a basic general principle which expresses the attitude of the medical profession toward the subject of medical care. We present the following statement as the consensus of our opinion:— *It should be the aim of the medical profession to strive to bring about conditions under which adequate medical care is available to all.* We present this statement with the full realization that opinions differ as to what constitutes adequate medical care and with a due appreciation of the fact that medical care is not the responsibility of the medical profession alone but concerns also the general public and the governmental agencies officially responsible for the protection of the public health.

##### Existing Conditions

In order to clarify the situation it is worth while, we think, to discuss existing conditions and the responsibilities of the various groups concerned in the solution of this intricate and knotty problem.

It is clear that the people who need medical care can be divided according to their economic status, into three groups, (1) the well-to-do, (2) the indigent, and (3) the low-income group.

The well-to-do constitute no problem so far as their ability to meet the cost of adequate medical care is concerned. They do constitute an educational problem, for it



is a notorious fact that among this group are some who lack faith in modern medicine and who resort to self-medication or to the ministrations of quacks and cultists.

Controversy as to the adequacy of medical care under the existing setup concerns the indigent and the low-income group and the chief contentions of the critics of existing medical conditions are, (1) that the indigent are not receiving adequate medical care and (2) that the low-income group are unable to meet the costs of adequate medical care in illnesses that involve extraordinary expenditures for diagnosis and care.

#### Responsibility for Medical Care

It is pertinent, we think, to discuss the responsibilities of the various groups concerned in supplying adequate medical care to the public, assuming that the term "medical care" includes both preventive medicine and the care of the individual patient. It is necessary to point out that of the three groups interested and involved in the practice of medicine, namely, Organized Medicine, the Government and the Public, no one is qualified, alone, to decide how medical care shall be made available to the public. Organized Medicine is qualified to pass on the scientific aspects of medical practice and the problems involved in their application, but in order to reach a satisfactory solution of the problem of medical care as a whole consultation and cooperation with representatives of the other two groups will be necessary.

(Footnote — In discussing the responsibilities of these various groups we have taken up the matter along lines similar to those followed by a Special Committee of the New York State Medical Society on the same subject. We wish to acknowledge our indebtedness to this Committee.)

#### The Responsibilities of Physicians

We believe that physicians are responsible for improving the standards of medical care and for protecting the public against the encroachment of incompetent healers *so far as lies within their power*. The licensing of physicians is a function of the State, acting through a licensing board or boards, and any individual so licensed, be he a regular physician, or a cultist, is presumed to have given evidence of ability to practice the healing art in a competent manner. It is true, however, that in many states the examiners who pass on candidates are appointed by the State Medical Society. Obviously the medical profession is responsible for the appointment of men of proved capacity and integrity to these positions. The recent creation, within the profession, of Boards to examine those physicians who desire to practice specialties should receive the hearty support and encouragement of the medical profession, who should use every legitimate means to prevent the ill-prepared and incompetent from posing as experts in special fields.

The medical profession is also responsible to some extent for providing its members with opportunities to keep abreast of progress in medical science and art. This responsibility has been accepted for many generations. The creation of medical libraries, paid for by the profession itself and the scientific meetings of medical societies, are commonly accepted methods of graduate education. In some states instruction has been carried almost to the doorstep of the country doctor. In hospitals the interne

staff is under the instruction of the attending physicians, who are in turn stimulated by the contact. It must not be forgotten, however, that in the last analysis all these opportunities are fruitless without a desire on the part of the individual physician to profit from them. There are some physicians, unfortunately, who fail to do so, and we can see no remedy for this except the periodic re-examination of licensed physicians.

It has been suggested that the medical profession is responsible for the enforcement of discipline among its members and that it does not always have sufficient power to do this. So far as flagrant offences against the laws of the State by members of the profession are concerned it is probable that ample disciplinary power already exists in most states. In lesser matters, such as infractions of the code of ethics, recourse may be had to the Censors of the Society of which the offender is a member, with appeal to the Judicial Council of the American Medical Association as a court of last resort. It must be admitted, however, that great difficulties attend the obtaining of evidence in certain types of offense and that those physicians who are not members of a society are beyond reach of any discipline except the pressure of public opinion.

It is only in recent years that the responsibility of the medical profession for the mass education of the public in medical matters has begun to be appreciated. However, there is plenty of evidence that the former secretive attitude of the profession is being abandoned. The American Medical Association publishes a Journal, *Hygeia*, devoted to lay education. Lectures, newspaper articles and radio talks on medical subjects are now daily occurrences. It is essential that close cooperation should be maintained between the medical profession, through their appointed representatives and newspaper writers or radio speakers, lay or medical, who discuss medical subjects. Otherwise garbled, misleading or inadequate reports cannot be avoided.

#### Responsibilities of the General Public

The provision of the machinery necessary for the production of well-trained physicians and for the adequate care of patients is a public responsibility. This machinery includes properly equipped medical schools, hospitals and laboratories. These may be provided through the generosity of philanthropists, by taxation of the people, or by a combination of both methods. In the main the public has accepted this responsibility but the appropriations from public funds for the support of hospitals have at times been quite insufficient.

The general public is responsible for the provision of competent medical care for the indigent. The exact mechanism of providing this care must, no doubt, vary according to local conditions, and inasmuch as certain of the methods now in use have, in some cases, resulted in the violation of the traditions of medicine, it is advisable that the details of such care in each locality be arrived at through conference between representatives of the general public and representatives of the medical profession. So far as possible the indigent should be allowed to preserve the right of individual choice of a physician, and physicians caring for such patients should be paid at a rate substantially equivalent to the usual fees in a given region. No system for supplying medical care to the indigent should

be tolerated which is based upon cheapness at the expense of quality.

Under certain circumstances assistance to the low-income group, in case of catastrophic illness or to meet the expense of necessary technical examinations, is a responsibility of the general public. Recent experience has indicated that it may be possible through group hospital insurance or some similar plan to remove this burden from the shoulders of the general public. Wherever such plans are proposed, however, it is essential that the details of the contract shall receive the careful scrutiny of representatives of the medical profession in order to avoid the inclusion of individual medical as contrasted with hospital services.

#### Responsibility of Governmental Agencies

The responsibilities of Governmental Agencies, including local, state and federal boards of health, are mainly concerned with (1) the licensing of physicians, (2) the control of food, water supplies, sewage disposal, and drugs, (3) the care of the insane, feeble-minded, epileptic and tuberculous poor, (4) the control of infectious diseases, and (5) the control of radio broadcasts which discuss matters of health. In no case should such agencies enter into the practice of medicine except that in case of doubtful diagnosis in infectious diseases an expert connected with the health administration may act in a consultative capacity.

#### Recommendations

After a careful consideration of the problems of medical care as discussed in the preceding part of this report, your Committee considered the advisability of attempting to formulate a program for this State. They came to the conclusion that the intelligent formulation of such a program necessitated accurate knowledge of the conditions surrounding medical practice in Connecticut. They felt that it was necessary to know the number of indigent in the State, whether they were receiving satisfactory medical care, and the number of low-income families and their medical problems. In brief, what was needed was accurate knowledge as to the details of the whole situation discussed in the earlier paragraphs. The recent plan of the American Medical Association and the questionnaires which have been formulated by that Association were considered. The Committee were of the unanimous opinion that this attempt on the part of the American Medical Association to obtain accurate knowledge of the conditions surrounding medical care all over the United States was a step in the right direction. They felt that some modification of the questionnaires might be necessary to meet local conditions. They were of the opinion that the practical difficulty in carrying out such surveys lay in the expense. The Committee was of the opinion that an attempt to carry out such a survey in the State of Connecticut by volunteer workers would not be satisfactory, that it would not be possible to obtain the necessary evidence in this way, and that such a report would be both inaccurate and misleading. It was felt that a satisfactory medical economic survey of the State of Connecticut could only be made with State aid.

Your Committee also discussed at some length the general subject of medical care. It was pointed out that neither medical care nor the organization of society were static. Changes are constantly going on and are likely to

continue. The American Medical Association has published pamphlets in which many of the experiments which have been worked out by the medical profession in conjunction with the public were described. Your Committee felt that there was probably no subject which comes under discussion by the medical men of the State at the meetings of their official organization and at the meetings of the American Medical Association which was more important than medical care. For this reason they felt that some plan should be worked out which would create permanent committees, both state and national, which should have this subject under continuous consideration.

Your Committee therefore makes the following recommendations:

(1) That the Governor of the State of Connecticut be requested to consider the appointment of a Commission, whose function shall be to conduct a study of medical care in the State of Connecticut, the cost of such study to be borne by the State. This Commission should cooperate with committees representing the Connecticut State Medical Society, and other organizations such as the State Dental Society, the State Hospital Association, the State Nursing Association, and representatives of the official health agencies, whose main interest lies in the field of health. When the factual findings of the Commission's studies are available, The Connecticut State Medical Society shall cooperate with properly constituted authority, to the fullest extent of its resources, and its personnel in the development of a program directed toward making available to all the people of our State proper medical care.

(2) That this Society suggest to the House of Delegates of the American Medical Association the desirability of appointing a special Council of the Association, which should be known as the Council on Medical Care; That this council should include representatives from the bureaus of Legal Medicine and Medical Economics and also, as ex-officio members, the Chairmen of the Council of Medical Education and Hospitals and the Council on Industrial Health and representatives of the United States Public Health Service and the health sections of the United States Department of the Interior; that each State Medical Association should appoint a Committee on Medical Care to cooperate with the Central Medical Council and that each County Medical Association should also appoint a Committee on Medical Care to report to and cooperate with the State Committee on Medical Care.

#### Minority Opinions

The following letter from Dr. Arthur B. Landry dissents from the majority report:

"Dear Doctor Blumer:

From further consideration of the report submitted for 'comments, criticism or changes', recommendation number one of the report is viewed with sufficient concern to question the advisability of presenting it to the House of Delegates.

My reasons for so viewing this recommendation are as follows:

1. In this matter the Connecticut State Medical Society is acting without the sanction of the American Medical Association which has already assumed leadership and planned the course of action for its component societies in order to determine the need of 'adequate medical care'



and also the relation of the medical profession thereto in the respective states.

2. Requesting the Governor of the State of Connecticut to consider the appointment of a commission to conduct a study of medical care in this state may well open the door to the introduction of compulsory health insurance or other plan of medical practice inimical to the best interest of medicine.

3. Regardless of the inclusive suggestions embodied in the committee's recommendations, there is likelihood that the function of a Governor's Commission would be extended to include recommendations, in which case there would be grave danger of underrating professional opinion and of subverting medical advice.

4. There is wide spread feeling, in Hartford County, at least, that the passing of a medical survey from a medical or professional agency to a governmental one would be to turn over a duty which is primarily that of the medical profession.

There is also the feeling among many of our members that the profession will stand in greater peril of State Medicine once the government initiates an investigation of this medical problem.

5. Since the committee recommends the establishment of 'permanent committees both state and national' to consider the whole question of medical practice, it seems proper to await the advice of those bodies before acting independently upon the matter of requesting the Governor to appoint a special commission.

6. It seems to me quite possible and also feasible for the State Medical Society to carry on a state wide survey in the future.

As the Society's funds increase and as education of its members I am not simply hopeful but convinced that the organized medical goes on pointing to the necessity and value of maintaining leadership in the solution of the problem of 'adequate medical care', profession of Connecticut will shoulder both the responsibility and the cost of the Survey outlined by the A. M. A. with such modifications as the peculiarities of the State of Connecticut and of the times require.

Because of the reasons set forth I cannot subscribe to that part of the report which recommends 'that the Governor of the State of Connecticut be requested to consider the appointment of a commission'."

Very truly yours,

ARTHUR B. LANDRY

The following letter from Dr. Benedict N. Whipple contains some reservations.

"Dear Sir:

Under 'Comments, Criticisms and Changes' on report received, paragraph on 'Recommendations,' Item 1, would favor its reading that the Connecticut Medical Society be requested to consider the appointment of a commission whose function shall be to conduct a study of medical care in the State of Connecticut, the cost of such study to be borne by the Society. This commission should cooperate with other organizations such as State Dental Society, etc., as already mentioned in the paragraph. When the factual findings of the commission's

study are available, the Connecticut State Medical Society shall cooperate with properly constituted authority to the fullest extent of its resources and its personnel in the development of a program directed toward correction of any faulty situations which may be uncovered and provide adequate medical care where survey reveals such to be lacking.

I would be willing to compromise on a commission appointed by the Society and the State of Connecticut provided sufficient representation of the State Medical Society existed thereon and the necessary, if any, correction toward adequate standard be left with the Society rather than to possible state political legislation, should findings of the commission warrant same, the expense of financing this commission to be pro-rated between the State and the Society.

I am still of the opinion that the Medical Society should take steps toward establishing clinics (for instance at the recognized hospitals, etc.) where electrocardiographic studies, X-ray diagnoses and recognized laboratory procedures could be obtained by worthy cases on request of attending physician at a reasonable charge (approaching actual cost)."

Respectfully submitted,

B. N. WHIPPLE,

May 24th, 1938.

Dr. George Blumer, Chairman,  
Committee of Twenty.

We, the undersigned members of the Committee of Twenty, desire to modify suggestions number one of the Committee Report submitted for "comments, criticism and changes".

The modifications are embodied in the following:

That the Connecticut State Medical Society be requested to consider the organization of a Joint Commission composed of members of the Connecticut State Medical Society to be appointed by the Council of the Society — together with an equal number from each of the following groups:

1. From the citizens of the State to be appointed by the Governor.

2. Connecticut State Dental Society.

3. Connecticut State Hospital Association.

4. Connecticut State Nursing Association.

5. Connecticut official health agencies whose main interests lie in the field of health.

The purpose of this Commission shall be to conduct a study of the adequacy of medical care in the State of Connecticut.

The Connecticut State Medical Society shall bear its just proportion of the cost of this Commission for its study.

Respectfully submitted,

ARTHUR B. LANDRY,

WARREN T. ROOT,

G. W. DUNN,

B. N. WHIPPLE.

The House of Delegates accepted this report and referred it back to the original Committee of Twenty as a reference committee for further study requesting that a final report be submitted at the adjourned meeting of the House of Delegates on June 1.

## REPORT OF THE HOSPITAL COMMITTEE

Mr. President and Gentlemen of the House of Delegates:

The Hospital Committee begs to report that they have held several meetings during the year, either as a whole or in sub-committees. The major problems under consideration have been Sanitary Code Section 2391 — relative to licensing of Hospitals, etc., — and the much discussed question of prepaid hospital care.

The former subject under the chairmanship of Dr. Harry Hanchett was discussed at length but so many legislative questions entered that further deliberation perhaps with the Legislative Committee was decided upon. This, however, is a very important matter and should not be lost sight of at the coming meeting of the State Legislature.

The questions involved in considering the Prepaid Hospital Plan have been in many respects quite complex. Your Committee has closely adhered to the resolution passed at the last annual meeting of the House of Delegates especially in regard to insisting that professional services be excluded. This has brought to the foreground several controversial questions and in September 1937, at the request of the Connecticut Hospital Association, a joint committee from the two Associations was appointed to discuss the very important question. Several meetings were held, and it was finally decided that for the best interest of both the Connecticut State Society and the Hospital Association, a uniform or standard contract be adhered to, and that this contract exclude professional services. Your Committee could go no further in view of the resolution before mentioned.

There are at present operating in this State at least three plans of Hospital prepaid character — the New York plan — the Norwalk plan — the New Haven plan — the latter offering a contract which has been approved by the State Society. These plans are in operation at New Haven — Waterbury — Norwalk — Danbury, and most of the hospitals of the state are accepting patients under the provisions of the patients' contract without having entered into a definite agreement with the sponsors of the paying plans.

It is not the aim of your Committee to advise but it is hoped that a uniform plan which will not embody the services of physicians and will not include those who obviously will be and are unable to pay for medical services be adopted.

We feel that the joint meeting of the two (2) Associations has been a step forward and sincerely hope that if other problems arise subsequent meetings with this or other Committees can be arranged for the mutual benefit of the Medical Profession and Hospitals.

In December, 1937, Dr. Harry Hanchett decided to resign as Chairman of this Committee but fortunately for the Committee he still remains a member. The interesting and whole-hearted work of Dr. Hanchett should not be overlooked.

The Committee further reports that the hospitals of the State are constantly improving and adding to their scientific equipment and to the character and proficiency of their work.

Notable additions in the building field are the Clinical Building to the Backus Hospital, Norwich, the large addition following a successful drive for funds at Danbury Hospital, the 60 rooms with Operating and Delivery rooms at St. Vincent's Hospital, Bridgeport, and the Temporary Nurses Home of 70 rooms at Bridgeport Hospital.

Respectfully submitted,

H. BERTRAM LAMBERT, Chairman

(To be continued in October issue)

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## SULFANILAMIDE THERAPY

The occurrence of hemolytic anemia, hemolytic jaundice, and especially agranulocytosis is rare following the administration of sulfanilamide. Such conditions may well be regarded as being due to idiosyncrasy. Whether this idiosyncrasy is a congenital hypersusceptibility or has been produced by the previous administration of other drugs is not known. The widespread use of the salicylates, particularly in the form of aspirin, now a household drug, may be one of the benzol derivatives that establishes the substrate upon which sulfanilamide builds to acquire its unusual toxicity, or, it may be due to the medicinal use of aminopyrine (pyramidon) which in itself will produce blood destruction. —*Med. Ann. Dist. Col.*, June, 1938.

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## L-CEVITAMIC ACID IN INSOMNIA

Schoeffel and Fisher, (*Ill. Med. Jour.*, July, 1938), report the use of l-cevitic acid in from one to three grains daily in over 100 patients suffering from insomnia and other conditions without evidence of toxic effect. They found that over dosage produced sound sleep from which the patient might be aroused easily, followed by drowsiness during the day. The drowsiness disappeared within twenty-four hours after discontinuing the vitamin C. The dosages used in this investigation appeared to permit a considerable margin of safety.

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## NEW GRANTS BY COMMONWEALTH FUND FOR MEDICAL RESEARCH

Special grants were authorized in April, 1938, in the following new fields of medical research:

The first is an analytical study of the streptococcus, the organism responsible for scarlet fever and some of its more dangerous complications, for some of the severe pneumonias, for a very fatal form of meningitis, for septic sore throat, erysipelas, septicemia following childbirth, and many of the systemic poisonings which follow wound infections. At the University of Pennsylvania a group of investigators under the direction of Dr. Stuart Mudd, has found the way to break up this organism by new methods which apparently do less damage to its chemical structure than older techniques; an antigenic substance (one that stimulates the formation of antibodies in the infected animal body) has been isolated that may play an important part in the building up of immunity to streptococcal invasion. The intricate chemical structure of the bacterium is now being worked out.

A 3-year study of the cause and mechanism of failure of the enlarged heart, by Dr. Joseph T. Wearn, professor of medicine at the Western Reserve, University School of Medicine will have support from the Fund.

Another grant goes to the Harriet Lane Home of the Johns Hopkins University School of Medicine for a special study, under the Department of Pediatrics, of the relation of the endocrines to growth and development in children. The need for a base line defining normal endocrine function is pressing, since far-reaching inferences drawn from pathological conditions have not yet been adequately controlled by quantitative studies. The field is a difficult one, and the present project attacks the problem at a point where endocrine failure is conspicuously revealed, that is, in cases of arrested physical and mental growth.—*The Child*, June, 1938.



## ADEQUATE MEDICAL CARE

It is very easy to believe that the obvious fact that the lowest income group have more days of disability per capita than do the relatively well to do, but it is not right nor fair to assume that this is due to inadequate medical care. Rather it would seem more proper to state that improper housing and inadequate food are the

responsible factors. Likewise it does not seem that there are twenty millions of people in this country who do not have available hospital facilities. On the contrary the American Medical Association has statistics to show that there are less than two million people in this country who are farther than thirty miles from a hospital where attention would be given to the poor man as well as the well to do.—*New Orleans Med. & Surg. Jour.*, July, 1938.



## PLACEMENT BUREAU FOR YOUNG PHYSICIANS

The Michigan State Medical Society maintains a Placement Bureau to aid physicians who desire to find suitable locations in that state. This Bureau is trying to serve Michigan communities by supplying them with well qualified doctors of medicine who are able to bring a high type of medical service to the people, rather than allow these districts to go unserved or to be forced to rely on the ministrations of lesser qualified healers.—*Jour. Mich. State Med. Soc.*, June, 1938.



## GIVE THE DOCTOR A REST

Why the present crusade against the "high cost of medical care?" The average case of sickness is not costly to the patient from the standpoint of the physician's fees. Rarely more than one-third of any case of sickness is embraced by the physician's fee. The balance of the cost must be charged to the drug store, the hospital, the nurse, the pharmaceutical and biological manufacturers. Yet the unfair cry is raised that the physician's fees are too high, and the demand is made on the government to furnish physicians with no cost to the sick man. A comprehensive revision of thinking on this subject of "high cost of medical care" is the crying need of the day. Let a sense of objective fairness prevail in this crusade, and not a pathological bitterness against the doctor just because he drives a shiny car and wears a clean shirt.—*S. W. Med.*, June, 1938.



## ORGANIZATION TRENDS

Is the medical profession actually advancing or is it shifting to a more business-like point of view?

Social pressure upon the medical profession determines its group thinking and its position in relation to the public.

The profession is being forced into more intensive effort to maintain its economic well being. This results in the increased emphasis on organization. Social pressure also exacts certain requirements which cannot be fulfilled through an increase in business efficiency.

There is a real danger that organization may develop to the point where business may submerge scientific interest and professional ideals. —*Jour. Kan. Med. Soc., May, 1938.*

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### GREEN TEETH FOLLOWING ICTERUS GRAVIS

Ellis in Proceedings of the Royal Society of Medicine, May, 1938, reports a case of green teeth following Icterus gravis. Jaundice developed eight hours after birth. Admitted to the hospital at seven days he was treated with blood transfusions and iron and on discharge after ten weeks was still slightly jaundiced. The upper incisors erupted at six months and were olive green in color. He now has twenty teeth, all of which are partly green. This is a rare but recognized sequela of icterus gravis neonatorum, the color of the teeth being presumably due to icteric staining of the membrane during the first weeks of life.

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### THE PROBLEM OF ALCOHOLISM

Regardless of the causes of the condition, the facilities for care and treatment of alcoholism are woefully inadequate, particularly for prolonged care which would tend to prevent the onset of mental disease and chronic ailments among this group. There is need for re-education, especially among physicians, lawyers, penologists and sociologists. The care of alcoholics is not alone a hospital problem, and the expense to the community warrants the provision of additional facilities for treatment, custodial care and rehabilitation. The establishment of clinics would not cause the problem to disappear, but would pay large dividends on their initial cost by the reduction of chronic alcoholism among persons who might be reached in its early stages.

The most serious need at the present time is not provision for the prolonged care of patients suffering from chronic alcoholism but additional facilities for care of acute alcoholics. This need

is to be found in most large municipal hospitals throughout the country, and indicates the importance of re-education to make clear the position of alcoholism as an essentially medical problem.

A series of studies of alcoholism is now being carried out at the Boston City Hospital with the assistance of the W. P. A. Project.—*N. E. Jour. Med., Sept., 2, 1937.*

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### AMERICAN BOARD OF INTERNAL MEDICINE, INC.

Written examinations for certification by the American Board of Internal Medicine will be held in various parts of the United States on Monday, October 17, 1938, and on Monday, February 20, 1939.

Formal application must be received by the Secretary before September 15, 1938 for the October 1938 examination, and on or before January 1 for the February 1939 examination.

Application forms may be obtained from William S. Middleton, M.D., Secretary-Treasurer, 1301 University Avenue, Madison, Wisconsin, U. S. A.

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### RAILWAY SURGEONS TO MEET IN CHICAGO

Never before in the history of the Railway Surgeons have problems been so grave economically, or technique and treatment procedures of such import as they exist this year.

The 23rd annual meeting of the American Association of Railway Surgeons will be held at the Palmer House, Chicago, September 19th to 23rd, 1938.

This association includes members in practically every railroad company in the United States, as well as the separate group organizations, embracing railroad surgeons of the New York Central System; Southern Railway; Atlantic & West Point R. R.; Western Ry. of Alabama; Illinois Central System; Chicago Milwaukee, St. Paul & Pacific R. R.; Rock Island Lines; Chicago, Burlington & Quincy R. R.; Chicago and Northwestern R. R.; the Georgia Railway and other road associations.

An extremely interesting and highly profitable program has been arranged and all physicians and surgeons are invited to attend the sessions of this meeting as guests of the organization. There will be no registration fee to M.D. non-member guests.

In addition to the scientific exhibits, a technical show will be held, including the presentation of new equipment, advanced types of therapy, new pharmaceutical and biological products and the latest techniques in many branches of the profession.

A cordial invitation for you to attend is extended by Dr. Harvey Bartle, President of the Association. Complete program and information regarding the meeting and the exhibits may be secured by addressing Mr. A. G. Park, Convention Manager, the American Association of Railway Surgeons, Palmer House, Chicago, Illinois.



EXCERPTS FROM THE ONE HUNDRED  
AND FOURTEENTH ANNUAL REPORT  
OF THE PSYCHIATRIST-IN-CHIEF  
OF THE NEURO-PSYCHIATRIC  
INSTITUTE OF THE HARTFORD  
RETREAT

By no means has all knowledge in medicine been the out-growth of the general hospital with its scientific laboratories and its improved public relations, but it is safe to say that without the modern hospital in its present setting, as part of the social scheme of things, much of the advance would not have been made. The time will come, I hope, when the psychiatric hospital will more closely parallel the general hospital in its methods, in its functioning, and in its relationships. The general hospital, with its combination of full-time and part-time doctors; the general hospital with its doors thrown open to selected, qualified men who practice in the community and also in the hospital; the general hospital with its women's auxiliaries and other groups interested in its welfare, has done something more than improve the practice within the hospital. It has been a means of educating the public in matters of health; it has been a means of creating a demand on the part of the public for higher standards and better care for the sick; and of permanent importance, it has been a means of removing the fear of the general hospital from the minds of prospective patients.

I urge that some way be found to open up the psychiatric hospitals along similar lines so that the barrier between the psychiatrist and his hospital on the one hand, and the remainder of the medical profession on the other, will be withdrawn entirely; so that the public will take a greater interest in and assume a greater responsibility for the improvement of the mental hospital; and so that all fear of the mental hospital will be dissipated. I quite realize that such a suggestion for opening up the psychiatric hospital is easy to propose but appears difficult to put in operation. I can enumerate many difficulties which seem to be in the way, but because it violates tradition and appears difficult are not adequate reasons for postponing the performance of a public service. I am sure it would disturb our already doubtful sense of security in this field of ours which, at present, lends itself so

readily to muck-raking, to misrepresentation, to distortion of facts and to political manipulation, but in the long run our position will be stronger and the sufferer from mental or nervous ills will benefit. It is quite possible that after a period of readjustment we will find our isolation broken up, and that good psychiatry and honest effort will be rewarded by public support of our ideals.

In recent years a great deal has been said about the "dynamic approach in psychiatry." When this attitude is consistent, I respect it. But I am less enthusiastic about the so-called dynamic approach in psychiatry when it is combined with traditional methods whose chief claim to continuance is that "it always has been done" and "that is the way we do it." It is highly important that if we are to make any dynamic approach effective, we must make our methods of treatment and the operation of our institution equally dynamic.

We have been making an effort to bring the man engaged in the community practice of our specialty into the Institute. We look forward to the day when a method can be perfected whereby the man in the private practice of psychiatry will be able to take care of the ambulant patient in his office, and when the patient needs hospitalization, will have the facilities of the Institute much more at his disposal. Here I would like to interpolate that we at the Institute are performing the function of a diagnostic clinic for the men in the field. If psychiatry is to develop, it seems to us highly important that all of our resources be put squarely behind every man in private practice. The man of the front line in this war against mental disease is the doctor in private practice. We should do all in our power to strengthen his position and supply him with the necessities for success. He is the key man in truly preventive psychiatry.

Even the most pessimistic and cynical individual must admit that in this country the public has been tremendously generous to medical research. With a great deal of pride we may point to the advances which have been made by the American medical profession as the result of these investments. In spite of this fact, I sense a feeling on the part of the public that there should be greater accountability on our part. I sense a growing demand that in the field of psychiatry we should develop a keener sense of

discrimination in the subjects of our investigation and that we make our efforts less general and more specific. Some of our research projects are being looked upon askance, and some of the "truths" that we are pursuing are regarded in some quarters as rather too nebulous. There is a tendency to compare our methods and our results with those in the fields of engineering, physics, chemistry and other branches which have been tremendously productive. It has become quite the vogue for medical people in psychiatric organizations to talk rather loosely of their "investigations" and "research." One is forced to admit that the term research has too often been used as a cloak to cover pseudo-scientific work, or perhaps to dignify routine clerical work such as compiling of statistics or other data on which true research might be constructed. In addition we must concede that much of the published work purporting to report research activities is hardly better than the review and redigestion of the literature. Indeed, one scientist remarked that psychiatry had fallen into the unfortunate habit of judging the "productiveness" of the profession by the number of papers produced rather than by the quality of sound, original thinking which they might reveal. Research in psychiatry should be subjected to the same hard-headed, practical criteria that obtain in other branches of science. In these other fields a research worker is invited to join a team of intellectuals which have assembled to find an answer to some specific human need. Research just for the sake of the name must give way to research for a specific purpose. Two of our great needs in psychiatry are (1) a clear vision of what our problems really are, and (2) ability to search for the answer without being distracted. A thoughtful psychiatrist is overwhelmed when he thinks of the obscurity which surrounds the origin of many mental symptoms, and one needs something akin to genius to be able to select specific points of attack which offer promise of enlightenment on some of our most pressing problems.

Without advancing a doctrine or even a theory, I should like to place before you the working hypothesis on which we are developing our own research program. To begin with, we look at our psychiatric diagnoses as descriptive terms and not as adequate representations of disease

entities. The terms dementia praecox, manic-depressive, psychoneurosis are convenient ways of describing the patient's condition, but they are not definite diseases in the same sense as pneumonia and typhoid. There is no harm in using these terms and there is much advantage, provided they are not considered too sacred and their employment does not sterilize our thinking. From this mass of mental disease terminology we may gradually lift definite diseases with known causative factors, definite methods of diagnosis, and specific treatment as, for example, general paresis. It is quite possible that as our knowledge increases, there may be many such diseases recognized which will cut through much of our present confusion. There is some indication that advances in the field of endocrinology will subtract a segment from this territory. There is also reason to hope that the further study of vitamin influence and the increasing knowledge of dietary-deficiency diseases will clarify some of the present obscurity. As time goes on we will appreciate more fully that the unity of mind and body are inseparable and that there is no sharp dividing line between mental and physical disorders. We have long taught our students that emotional and environmental factors can produce physical changes in the body, and that there are probably no physical diseases without an accompanying emotional disturbance. Some day we will cease to talk of physical disease and mental disease as though they were distinct entities.

It is with this belief in the unity of mind and body that we are developing our research program at the Institute. We are building our staff with those who can work together on a team and are capable of consolidating their points of view. It is my belief that these research associates should be judged by the quality and effectiveness of their thinking and not simply by the amount of writing they do. The reading of papers is either for the benefit of the author or his audience. The need for greater consideration of the latter is indicated.

We have played our part in the evaluation and development of the so-called insulin and metrazol shock treatments for dementia praecox. We have prosecuted certain investigations along endocrinological lines, and have instituted some psychological investigations.



## Our Neighbors

### MAINE

Friends of Dr. Thomas A. Foster of Portland, are offering him congratulations on his recent election to the chairmanship of the Council of the Maine Medical Association. A graduate of Dartmouth College, Harvard University School of Medicine and the Hartford Hospital, Dr. Foster is one of the leading pediatricists in Maine, enjoying a busy practice in Portland and surrounding towns.

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### MASSACHUSETTS

The following officers were elected by the Council of the Massachusetts Medical Society at its annual meeting in Boston on June 1:

President — Channing Frothingham, Boston.

Vice-President — A. Warren Stearns, Billerica.

Secretary — Alexander S. Begg, West Roxbury

Treasurer — Charles S. Butler, Boston

Orator — Elliott P. Joslin, Boston

The President in his report gave the membership as approximately 5300, a gain of over 100 members since last year. The income of the Society was reported as \$50,000. President Frothingham expressed himself in favor of starting "the machinery going for the elimination of inadequacy (of medical care) where it exists rather than to spend time, energy and money in trying to collect additional data on the subject."

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### RHODE ISLAND

The Providence Medical Association has appointed a full time executive secretary in the person of Mr. John E. Farrell, graduate manager of athletics at Providence College for the past twelve years. Mr. Farrell is a graduate of Providence College and has been a graduate student at Harvard and Boston Universities. He has been engaged in newspaper and publicity work and recently initiated a course in journalism at Providence College.

Dr. Creighton W. Skelton of Providence, Business Manager of the Rhode Island Medical Journal for the past fourteen years, died on June 26, 1938. One of his outstanding achievements

was to return to the treasury the entire amount appropriated to the Journal each year for ten successive years.

The second reunion of former interns of the Rhode Island Hospital will be held at the hospital on September 9 and 10. The program is to consist of clinics in the forenoons, presentation of papers one afternoon and a clam-bake the other afternoon.

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### NEW YORK

The staff of the Mary Imogene Bassett Hospital of Coopertown, N. Y., will conduct a conference on Rural Medicine on October 7 and 8 at the hospital. The four general subjects to be discussed are rural morbidity, public health programs in rural areas, post-graduate medical education in rural areas, and the economics of rural medicine. Several well known names appear on the advisory committee, among them Dr. Louis I. Dublin of the Metropolitan Life Insurance Company, Dr. Willard C. Rappleye of College of Physicians and Surgeons, Columbia University, and Dr. Ray Lyman Wilbur of Stanford University.

The University of Buffalo School of Medicine offers a post-graduate course from September 12th to 24th. The course covers considerable ground and should be of considerable value to the general practitioner. The fee is fifty dollars.

The Eleventh Annual Graduate Fortnight of the New York Academy of Medicine will be held from October 24 to November 4. The subject of this year's Fortnight is "Diseases of the Blood and Blood-Forming Organs." The program will include afternoon clinics and clinical demonstrations participated in by twenty-three hospitals. Evening meetings will be addressed by recognized authorities in their special fields, drawn from leading medical centers in this country.

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### NEW JERSEY

The Medical Society of New Jersey has announced a Clinical Session to be held in Newark on October 6 and 7. The instruction will be clinical and will be given in the hospitals of Newark. No charge will be made to the members for the scientific features of the session.

## - NEWS -

### *from County Associations*

#### Hartford

F. Earle Kunkel, M.D., of Hartford, is the author of a paper on "An Extensive Case of Creeping Eruption from the State of Delaware" which appeared in the Delaware State Medical Journal for June. At the time Dr. Kunkel reported this case he was an assistant professor in the Department of Dermatology and Syphilology, University of Pennsylvania School of Medicine.

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#### New Haven

Norton Canfield, M.D., Associate Professor of Otolaryngology, Yale University School of Medicine, read a paper on "The Clinical Recognition of Chronic Sphenoiditis" before the Eye, Ear, Nose and Throat Section of the Kentucky State Medical Association, September 13, 1937. The paper appears in the issue of the Kentucky Medical Journal for July, 1938.

Simon B. Kleiner, M.D., Department of Surgery, Yale University School of Medicine, read a paper on "Lymphosarcoma of the Anus" at the annual meeting of the American Proctologic Society held in San Francisco in June.

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#### New London

The Wm. W. Backus Hospital has completed a new wing which is unique in that it houses all the clinical facilities of the hospital in one compact unit. The first floor houses five clinic rooms, two clinic offices, waiting space for the patients, and an assembly room for staff and nurses meetings. The second floor accommodates the X-ray department and clinical laboratory. The X-ray Department consists of a cystoscopy room, radiographic room, dark room, fluoroscopic room, deep therapy room, and viewing room. All of the X-ray equipment is modern and shock-proof and will include a Kieffer Laminograph. The Clinical Laboratories have a general laboratory, a smaller room for urine and blood work, a pathology room with a museum off of it, and an office for the pathologist.

The third floor is the operating unit. It con-

sists of two general operating rooms with galleries, so that Doctors and Nurses who wish to see operations may have a good view and yet keep out of the room, an eye, nose and throat room, accident room, plaster room, anaesthesia room, a large nurses' work room, and nurses' office.

The fourth floor has a doctors' lounge and dressing room, a nurses' dressing room, store rooms, and entrance to the galleries.

The building is air conditioned. The corridors and work room are protected with rubber wainscoting and are sound-proofed. The operating suite has turazza floors and the rest of the building asphalt tile floors.

Moving these departments out of the old building has given more office space, a spacious record room, a better room for the doctors' library, and more room for interns' quarters.

The completion of this building has added greatly to the efficiency and convenience of all the hospital departments.

—☆☆—

#### Middlesex County

Dr. Ella A. Wilder, President of the Middlesex County Medical Association, left early in August for a vacation trip through Mexico.

Dr. Carl C. Harvey, who recently underwent a major operation at the Middlesex Hospital, is convalescing on his cruiser, the "Sandoah", somewhere on Long Island sound. He is accompanied by Mrs. Harvey and their two sons and daughter.

Dr. Louis Loffredo who was recently quite sick has now fully recovered and is again on full time duty.

Dr. James A. Murphy, President of the Middletown Board of Health, was acting health officer during the first two weeks of August. Dr. M. L. Palmieri, full time health officer, was on vacation during this time.

The First Aid sub-committee of the Middletown-Portland Bridge Celebration Committee, under the chairmanship of Dr. Roy S. Leak, established and staffed first aid stations along the line of march of the parade celebrating the opening of the new Middletown-Portland bridge, August 6, 1938. Three of these stations were established in Middletown and one in Portland. Each was staffed by a physician and several nurses with ambulance service available at each place. There were several calls throughout the afternoon, all of them being for minor dis-



turbances. The public health aspects of the celebration were under the direction of the health authorities of the respective towns.

Middletown's recent hurricane which plunged the entire southern part of the town into darkness when falling trees tore down power lines and disrupted service did not affect the electrical service to the Middlesex Hospital. While the main line supplying the Hospital was torn down, an emergency line established following the 1936 flood was not affected and power continued through this line.

## Correspondence

July 28, 1938

Dr. Stanley B. Weld, Editor,  
Journal of Connecticut State Medical Society,  
Hartford, Conn.

Dear Dr. Weld:

You have asked for suggestions concerning our annual meetings, and I beg to offer the following.

Our annual State meeting is the most important conclave of the State Society and it should be kept at the highest scientific point to attract and interest the members. Also, it should be the occasion for the members of our society who have something to present to have the opportunity to do so. It is at these meetings that discussion of papers should have the fullest liberty, and differences of opinion fully expressed. Discussers, however, who have no contrary views and nothing of value to add to the writer's conclusions should refrain from taking up the members' time.

I think it would be a sad mistake to turn the principal meeting of the Society into an occasion for recreation and the discussion of business

questions, and let our scientific program go by default into the hands of any group, even though they be members of our own family.

Those responsible for our Clinical Congress are doing a grand work, and we should be deeply thankful for their efforts and generous contributions. We are fortunate in having in our midst an organization that is so cooperative and able; however, I do not feel that the State Society should shift its obligations onto their shoulders. Stated papers at the Congress are given by men from without the state;— papers at the Annual Society meeting should represent the efforts of our own members.

Doctors attend medical meetings primarily to get information, inspiration, new ideas, or — electrically speaking, — recharged. The opportunity to fraternize with his colleagues is simply the dessert or wine which follows his good red meat.

I feel that a two days' session will appeal to members of the Society more than three days would. The papers should be shorter, and the program speeded up. Twenty minutes is long enough for most addresses, with discussions limited to five minutes. Exceptions can be made when we are privileged to hear a report on some topic of research.

I believe a program of papers in the morning from nine to one, with the afternoon devoted to clinics, section meetings, meeting of house of delegates, or recreation would be practicable, and prove popular.

The annual dinner should be held the first night of the meeting, thus insuring a large attendance, and permitting the members to get home the afternoon of the second day.

Very truly yours,

D. C. Patterson, M.D.

—☆☆—

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## • OBITUARIES •

### CHARLES E. KAUFMAN, M.D.

1886 - 1937

Dr. Charles E. Kaufman died of a heart attack at his home in West Haven on December 3rd, 1937. He was fifty-one years old and had been a practicing physician in West Haven since graduating from the Yale Medical School in 1920.

He was very active in civic and fraternal affairs, especially in the establishment of clinics and mosquito control work. He had been town Health Officer since 1935.

Quoting First Selectman Charles F. Schall, "In the death of Dr. Kaufman, West Haven has lost a well-beloved citizen and a most conscientious official."

He was a member of the Grace Hospital staff, Nu Sigma Nu fraternity, Annawan Lodge, No. 115, A. F. & A. M., the West Haven Rotary Club and the West Haven Congregational Church.

Upon graduation from the Sheffield Scientific School in 1909, he returned to his birthplace in North Dakota where his father maintained a ranch. In 1918 he came East again, re-entered the medical school and was graduated in 1920. He continued his interest in farming in New Hampshire where he spent his vacations.

After completing medical school, he attended the Post Graduate Hospital, New York, specializing in nose and throat. Keenly interested in childhood diseases, particularly of the nose and throat, he wrote several articles on that subject for medical publications, and had also conducted research work on the isolation of the diphtheria bacillus.

Dr. Kaufman leaves his widow, Rae Robicheaud Kaufman, and three sons, Charles E., Jr., and Leslie R., former Princeton football stars, and Ralph O., a student in Middlebury College, Vermont.

Ralph E. McDonnell, M.D.

### WALTER JOHN ROBBINS, M.D.

1874 - 1937

Walter John Robbins, M.D., the son of the late Rickson and Anna Warren Robbins, was born in Philadelphia, Penn., on the 28th day of November, 1874. He spent his early life in that city and attended the public schools there. He entered the University of Pennsylvania at Philadelphia and was graduated in 1896 with the degree of Doctor of Medicine. He further pursued a post-graduate course at Hahnemann's University in Philadelphia which he completed a year later.

Dr. Robbins served his internship at the Grace Hospital in New Haven, Conn. After practicing medicine in New Haven for two years he came to New Britain in 1900 and maintained his practice in that city for 37 years.

On the morning of November 22, 1937, Dr. Robbins died at his home after an illness of over a year. He had continued his practice however, until confined to his house in September. He would have observed his 63rd birthday anniversary the following Sunday.

In 1912 he was married at Tremont Temple, Boston, to Miss Maude C. Marshall of Digby, Nova Scotia. His wife is his only survivor.

Dr. Robbins was a member of the New Britain Medical Society, the Hartford County Medical Association and the State Medical Society. He was also a member of the Centennial Lodge, A. F. & A. M., in New Britain.

In his many years of medical service Dr. Robbins proved to be devoted to his profession, regardless of what hour of the day. Courteous and kindly by nature, a sincere friend as well as an able doctor, he performed sedulously in the event of illness and was greatly beloved by all his patients and friends.

Arthur S. Grant, M.D.



### ARTHUR J. SAVARD, M.D.

1892 - 1937

Physician, soldier, artist and sportsman were the titular accomplishments in the busy life of the late Dr. Arthur J. Savard of New Britain.

A physician first, with a kindly manner, the ability of a "good doctor" and a tireless worker;



all combined to bring to him a busy practice and made him a beloved advisor.

In 1918 he enlisted in the Student's Medical Corps of the Army and served his country until honorably discharged in 1919. His interest in military life persisted, in fact he really died in uniform, for he suffered a coronary occlusion while marching with The Eddy Glover Drum and Bugle Corps last Decoration Day and died within a few hours.

As an artist his interest was in oils and his rare accomplishments in this line of endeavor are the proud possessions of his family and his many friends.

Archery was his "play" and he did much to develop the sport in this locality. He was always interested in teaching the game to his friends and the younger generation.

Dr. Savard was born in Waterbury, April 7th, 1892 and attended the local schools, graduating from Crosby High School in 1911. He entered the University of Michigan in the fall and graduated in 1915 with the degree of A.B. He enrolled at Tufts Medical School and graduated in 1919. He completed a one year internship at Boston City Hospital and subsequently spent time at the Robert Bent Brigham Hospital and The Boston Dispensary. After completing a year internship at St. Francis Hospital, Hartford, he located in New Britain in 1920 to follow his life's work.

At the time of his death Dr. Savard was Assistant Attending Obstetrician and Assistant Attending Gynecologist at the New Britain General Hospital. He was a member and past president of the New Britain Medical Society, a member of The Hartford County Medical Association and the American Medical Association.

Surviving him are his wife, Margaret Blake Savard; a daughter, Jane; a son, Dudley; his mother; and two brothers, Dr. Henry O. Savard of Baltimore, Maryland, and Attorney Ernest E. Savard of Bristol, Connecticut.

Dr. Savard's death was a great loss to the community which he served, to his family a catastrophe, and to his confreres the passing of a doctor beloved by all; each, enriched by having known him and being one of them.

William F. Flanagan, M.D.

## • Quarto Notes •

### HERNIA

by Leigh F. Watson, M.D.

Member of the Attending Staff of California  
Lutheran Hospital and Methodist Hospital  
of Southern California

591 Pages	281 Illustrations	\$7.50
St. Louis	C. V. Mosby Co.	1938

This is an excellent single volume work on hernia. Starting with a historical introduction, the various types of hernias have been considered. The anatomy, etiology, symptoms, diagnosis, differential diagnosis, prognosis and treatments are clearly presented. Completeness is an outstanding feature of this book as the illustrations are profuse and the text is clearly and precisely written. Each step in the diagnosis and treatment of each type of hernia is described in a clear and concise manner.

Much of the historical material has been omitted in this edition and many procedures for hernia have been deleted because these operations are now not in general use. Emphasis has been placed on the original Halstead operation by the silk technique, to conform to present day practice, which is replacing fascia transplant in certain cases.

The author devotes eight chapters to the injection method of treatment of certain types of reducible hernia. These chapters are extremely complete with indications, contra-indications and methods. The author seems to be very enthusiastic concerning this type of treatment and allows this enthusiasm to permeate to the extent of suggesting its use as an adjunct to surgical treatment in inguinal hernia.

W. A. Standish



### MATERIA MEDICA, DRUG ADMINISTRATION AND PRESCRIPTION WRITING

by Oscar W. Bethea, M.D., Ph.G., Ph.M.,  
F.C.S., F.A.C.P.

Professor of Clinical Medicine, Tulane School  
of Medicine

577 Pages	Fifth Revised Edition	\$5.00
Philadelphia	F. A. Davis Company	1938

In the fifth edition of this book the author has added new material, changed the text relating to drugs discussed in previous editions, and omitted portions that have fallen into disuse, in an attempt to conform to the United States Pharmacopoeia XI, and the National Formulary VI. A very brief historical sketch of the important drugs is included.

The contents are divided into three parts. Part I deals alphabetically with the official and unofficial drugs, their therapeutic actions and uses, including with most of the drugs one or more carefully chosen sample prescriptions to cover their common uses. Part II, discussing

prescription writing, outlines this subject carefully in a practical and readable manner. This portion of the text is undoubtedly a useful guide to the Medical Student, Intern, or young practitioner in appreciating this phase of medicine which, for the most part, is inadequately handled in our schools. The third part of the text gives illustrations showing incorrect and corrected forms in prescription writing.

Besides a general index there is a "Clinical Index" which lists the common illnesses and symptoms, and gives reference to the appropriate drugs for treatment, thus enhancing the practical use of the text.

P. H. Twaddle.



## SUBMARINE ESCAPE TRAINING

(Continued from Page 430)

training they are now receiving in case the occasion should ever arise.

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## TREATMENT OF PEPTIC ULCER

(Continued from Page 442)

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## CANCER OF THE SKIN

(Continued from Page 451)

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### COMING MEETINGS

- American Association for the Study of Goiter, Washington, D. C., September 12-14.
- American Hospital Association, Dallas, Texas, September 26-30.
- Clinical Conference, Medical Society of New Jersey, Newark, October 6-7.
- International College of Surgeons, Philadelphia, Pa., October 13-14.
- Association of Military Surgeons of United States and Canada, Rochester, Minn., October 13-15.
- American College of Surgeons, New York City, October 17-21.
- American Public Health Association, Kansas City, Mo., October 25-28.
- Radiological Society of North America, Pittsburgh, Pa., Nov. 28-Dec. 2.
- American Urological Association, Southeastern Branch Louisville, Ky., December 2-3.
- American College of Physicians, New Orleans, La., March 27-31, 1939.
- Clinical Congress, Connecticut State Medical Society, New Haven, September 20-22.



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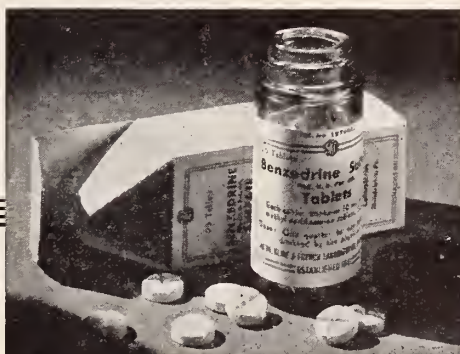
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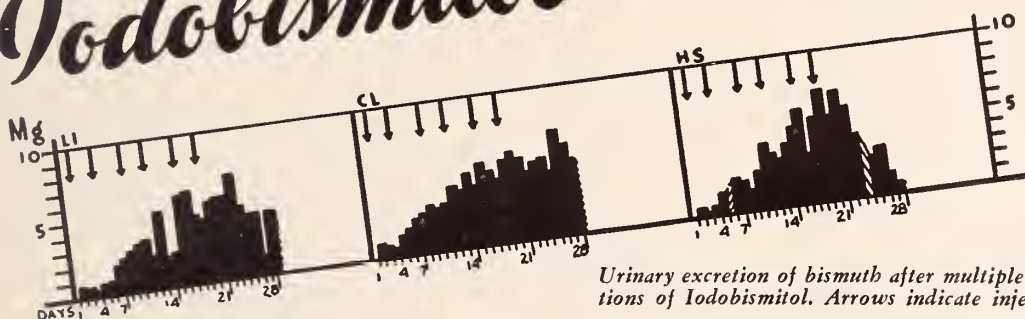
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Owned and Published Monthly by  
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Editor-in-Chief - STANLEY B. WELD, M.D.,  
54 Church Street, Hartford, Connecticut

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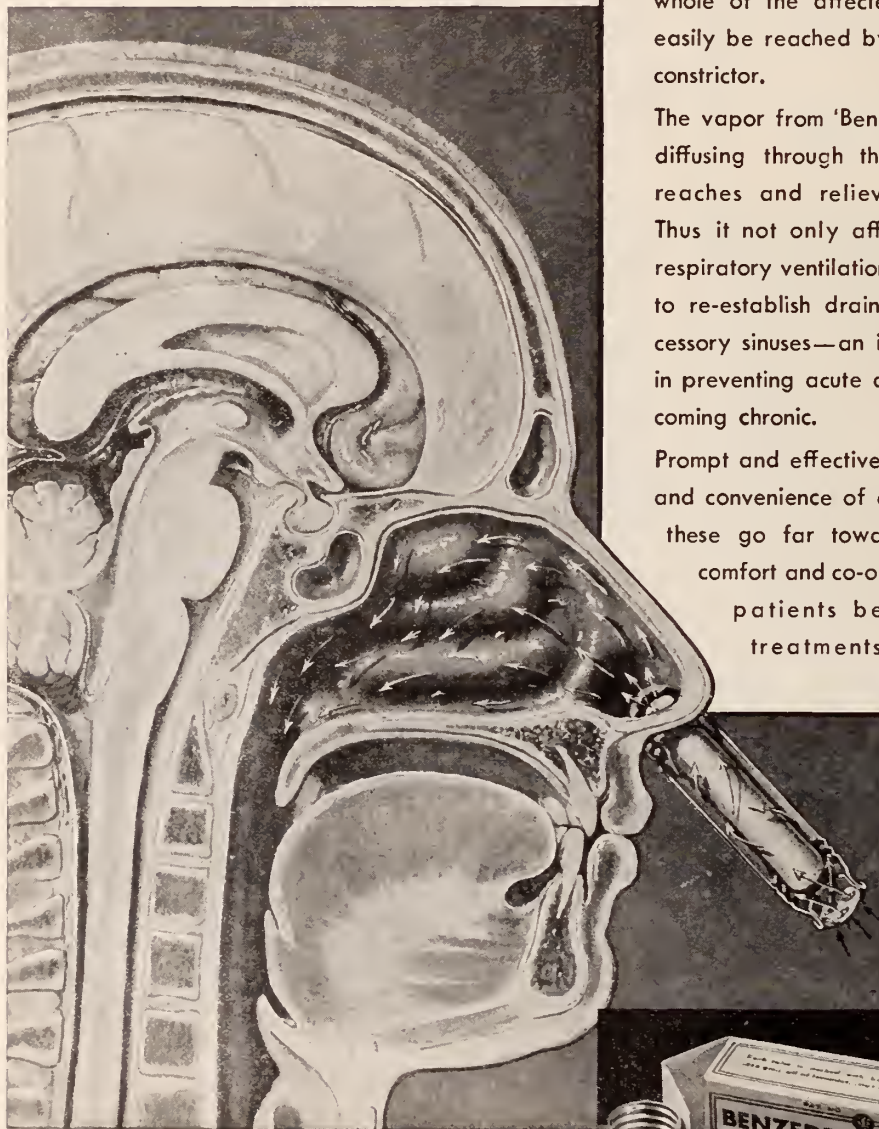
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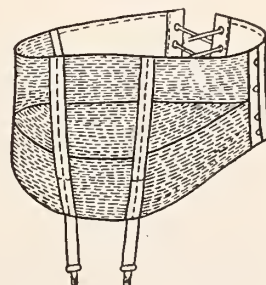
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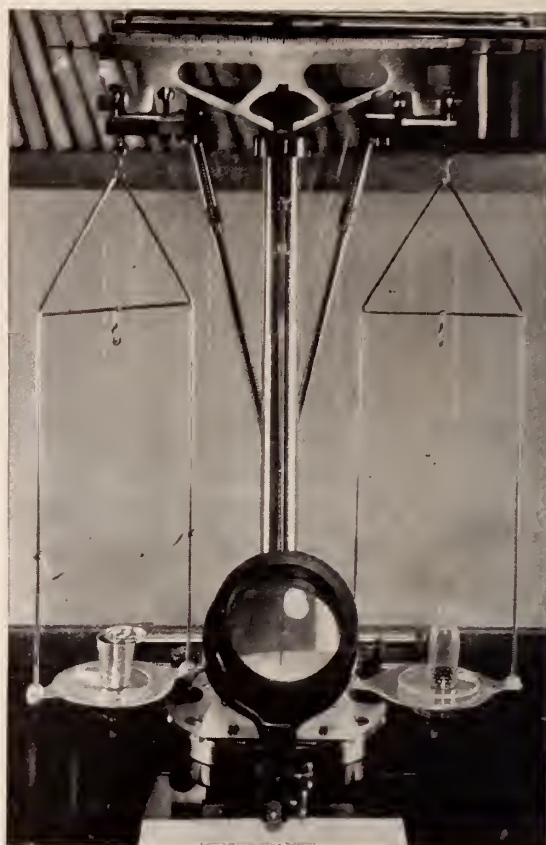
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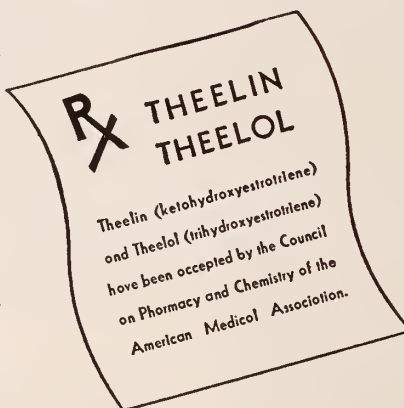
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# JOURNAL *of* The Connecticut State Medical Society

VOL. II.

OCTOBER, 1938

No. 10

## The Traffic in Drugs\*

THEODORE G. KLUMPP, M.D., Chief Medical Officer  
U. S. Food and Drug Administration, Washington, D. C.

When you wish to build a house in a community, the architect's plans must be submitted for approval, you must hire a plumber and electrician who have been licensed as qualified to do the work and, not only that, the electric wiring and plumbing must be inspected before they are approved for use. You may install an elevator in your house, but you must have a license for it and the safety and condition of the elevator are checked at regular intervals. In 1906 when the present Food and Drugs Act became law, there was little need for these regulations.

Fundamentally, the reason for all this is to protect man against man's carelessness, avarice and stupidity and to save him from annihilation by the machines he has created.

But a person who has a desire to get rich quick, or a yen for pharmaceutical experimentation, or a crackpot notion that some weed growing in his garden has medicinal value, can make any drug concoction he pleases and sell it. He can leave it to inspiration or divine guidance to tell him what the stuff is good for, or he can hire an advertising man to advise him on the money-making potentialities of various claims. Then all he has to do is have the beguiling voice of a radio announcer repeat the claims over and over again as if they were as well established as the Lord's prayer. Or if he wants to sell the article through doctors, he sends a detail man who explains in a confidential manner what the product is doing for all the other doctors. As a final gesture of assurance, he can bait the trap with a sample, and that is cheese that many doctor's can't resist.

Each week the Food and Drug Administration receives up to a hundred communications from butchers, bakers, housewives, automobile mechanics, Indian squaws and other equally unqualified persons who are interested in marketing a new food or a drug.

These people have no more right to prescribe for and treat symptoms and diseases than you have to build a bridge, or design an ocean liner, or fly a transport plane. You can't do these things, or even install plumbing or electric wiring without a license, but anyone can sell dinitrophenol to destroy a man's eyesight, or cinchophen to damage his liver, or radium to bombard his bone marrow, or aminopyrine to rob him of his defense against infections, or diethylene glycol to kill him outright, and there is nothing to stop him.

When the first report of fatalities from the elixir of sulfanilamide was received, an immediate investigation was begun. The seriousness of the situation was quickly apparent and the entire field force of the Food and Drug Administration, comprising some 239 inspectors and chemists, was assigned to the task of removing the outstanding supplies of the elixir, not only from the market but from the homes of those who had received it. It was learned that the concern had decided that it would be good for business to have sulfanilamide, a new and valuable drug, in a liquid form. For about a month the chief chemist tried to find something that would dissolve sulfanilamide. When he found that more than 40 grains of sulfanilamide could be held in an ounce of diethylene glycol, a commercial

\*Read at the Annual Meeting, Connecticut State Medical Society, Groton, June 1-2, 1938.

solvent related to various anti-freeze solutions, the firm began the manufacture and distribution of the product without tests of its toxicity. In a few days they had manufactured 240 gallons and distributed most of it — enough to kill thousands. Fortunately, perhaps not more than 104 victims lost their lives as the result of this example of a practice that is not by any means unique. But note the point of view: We hit upon an idea about a new drug; we mix the ingredients together; and, if they don't explode, we test the mixture for flavor, fragrance and appearance. The drug is then ready for marketing. After that, if we don't hear of deaths or complaints and we sell a lot of it, the drug is a success. I cite all this not because it is an isolated and horrible example of recklessness. If it were merely this, it would be as regrettable as a bolt of lightning that killed 100 persons, but it would have limited social significance. The important thing about it is, as the owner of the company indicated, the concern was engaged in the manufacture of drugs in accord with the law that obtains at the present time. Can you imagine engineers building bridges and waiting until they are open to traffic to find out whether they will carry the load or not?

As you know, the Food and Drug Administration had no authority under the Food and Drugs Act to do anything about this deadly concoction because it was deadly. We were forced to act against it on the basis that it was branded as an elixir, whereas it was not a true elixir.

A short time ago we encountered a box of red pills sold as "Revivo" pills by a Chicago doctor. Upon inspection of the pills it was noted that although they were supposed to be the same, there were slight variations in size, and shade of red. When analyzed it was found that the package was an indiscriminate mixture of three different kinds of pills: one was a cathartic, another was essentially thyroid, and the third contained strychnine. When the physician was investigated, it was found that he bought stocks of salvaged drugs from various sources, mixed all the red pills together and called them "Revivo". Another collection of pills of a different color was labeled "Retardo."

We encountered another drug manufacturer who had had on hand a large stock of miscellaneous salvaged liquid preparations. The liquids were all dumped together into a large cauldron,

mixed, bottled, and sold as a liniment. The present Food and Drugs Act has no provision for dealing directly with practices such as this. In fact, our inspectors don't even have authority to enter the factory to see what's going on. I'm glad to say, though, that most manufacturers do not stand upon a strict observance of their legal rights in this respect.

It is hardly necessary for me to say to anyone that listens to the radio that more money is spent for the radio advertisements of foods, drugs and cosmetics than any other class of merchandise. A similar situation prevails in other advertising media — newspapers, magazines, billboards. When I ride the subways in New York City — which I don't enjoy doing — I am perverse enough to use that as an opportunity to see how the subway placard advertising is going. I note that three out of every five signs are advertising something that is being promoted to improve your health. What is the significance of this continuous barrage of health advertising? You are intelligent people. Of course you don't believe much of it and, fortunately, you can protect your mental integrity by insulating your mind against it. But you represent a very thin crust in the cross section of the American population. There are literally tens of millions that believe these advertisements and are guided by them. In proof of this I need only cite the fact that the money to pay for these advertisements is coming from the pocketbooks of these tens of millions of our citizens. They are being advised on health matters all day long and far into the night. Their symptoms are being prescribed for by the radio announcer and inevitably they are obtaining their education in hygiene, the etiology and theory of disease, physiology and therapeutics from the advertisers, and the ideas are those which the advertisers think it is profitable for them to disseminate. Though you may not suspect it on first thought, this has a powerful influence on the practice of medicine. I need only mention that your patients are urged to try the so-called home remedies first, which means that you don't get to see these patients in the earliest stages of disease. The appendix has already ruptured; the chest pain which has been rubbed with liniment or treated with a mustard plaster is pneumonia in the fourth or fifth day of its course; the cancer of the stomach which has had home remedies



for months is beyond medical help, and the peptic ulcer is already ruptured. Not only is this aspect of the situation important, but the medical advice which you give your patients is subjected to comparison with the clever, polished, 24-hour-a-day advice emanating from the press and the radio. Your patients are in no position to judge which advice is correct. If your advice doesn't agree with what they are hearing and reading almost constantly, they are apt to think that you haven't kept up with the very latest advances. You don't know, for instance, that ilium is good for the teeth. In fact, you probably don't even know what ilium is. You don't know what a marvelous new cold remedy and fever breaker-upper Chromo-Quinine is. You don't know that there are double-action antiseptics like La Rasine. And you really don't know that acidosis is civilization's very greatest menace and that it is the thing to fight in head colds, constipation, "that tired feeling", "the morning after", indigestion, over-indulgence, and what not, and that unless a hundred million people get their Alka-Zipper, with the help of Uncle Isaiah, or their Ral Sepatica from Fred Allen, as a nation we can't possibly keep on the alkaline side.

At this point it may be pertinent to review briefly what the present Food and Drugs Act does cover and what protection it affords the public with respect to drugs.

Under this law a drug is defined as any substance described in the U. S. Pharmacopoeia or National Formulary or any combination of substances intended to be used for the cure, mitigation or prevention of disease. Note that this definition leaves out from under the law many substances that may effect the structure or function of the body but which are not offered for the cure, mitigation or prevention of disease. Is obesity a disease? Is the man who is bald diseased? Is a substance sold to keep you awake or give you increased energy a drug under this definition?

The present law concerns itself with only two aspects of drugs, first, the adulteration, and second, the misbranding of drugs.

Under the adulteration section it states in effect that a drug is adulterated if it differs from the strength, quality or purity set forth in the Pharmacopoeia or National Formulary, or if it is not described in those books, from its own stand-

ard of strength, quality or purity. There is nothing to compel a manufacturer to set a standard and all he has to do to get around this is omit any such standard or set up a fanciful one which the Government can't submit to test.

Under the misbranding section, the law declares a drug misbranded if the label bears any statement, design, or device which is false, but it provides, and this is one of the jokers in the law, that the Government must prove that therapeutic statements are both false and fraudulent. Now any lawyer will tell you that the proof of fraud is one of the most difficult things in law. In other words, we must show not only that the manufacturer was lying, but that he knew he was lying. We must show what was in his mind and that it was intent to deceive. Because of this joker the Government has never won a case based solely on therapeutic claims for diabetes. Unfortunately, the more ignorant a drug vendor is the more difficult it is to prove that he knew he wasn't telling the truth about his drug.

The penalties provided with the present act are in most instances a mere slap on the wrist. For a first offense in the criminal section there is a maximum fine of \$200. Not infrequently the fine imposed is \$50 or less. In a recent case in Memphis, Tennessee, the court imposed a fine of one cent. There are some manufacturers that regard this as a kind of nuisance tax to do business. The Government may also take action by seizing the goods. This is a very fine provision for removing goods from the market where they are shipped in large lots, but in itself it is not sufficient. Shippers often don't even bother to claim their product when the monetary worth is slight. In some instances the principal value of the shipment is that of the second-hand bottles.

The Food and Drug Administration has let no stone unturned to give the public as much protection as possible under the 1906 model of a Food and Drugs Act.

For example, the danger of contaminated surgical ligatures and surgical gauze and cotton was recognized. Ligatures and gauze are certainly not foods. Are they drugs? The law defines a drug as any substance intended to be used for the prevention, mitigation or cure of disease. Ligatures are certainly substances, and they are used to prevent, cure and mitigate disease. Therefore we concluded that they are drugs under the law and that drugs of this kind must

not be misbranded as to sterility nor adulterated with bacteria. Fortunately for you, and for us, this broadened application of the law was sustained by the Federal Court of Appeals, a few weeks ago in a case against the Bay Company, a subsidiary of Parke, Davis & Company.

In connection with our efforts against misbranded and adulterated drugs used against venereal diseases, we made preliminary studies of another drug, rubber prophylactics. We found, to our surprise, that from 30 to 90% of the prophylactics contained holes, capable of transmitting bacteria. We seized thousands of dollars worth of these worthless articles which resulted in the temporary shutting down of most of the manufacturing plants, the installation of new equipment and the introduction of methods of testing the goods before they are released. It is interesting to speculate what the effect of this amazing situation was on birth control statistics and venereal disease statistics as they formerly related to the dependability of prophylactics.

We may summarize the most glaring defects of the present law as it applies to drugs as follows:

1. The law applies to labeling — it gives no jurisdiction over advertising. Although the Federal Trade Commission has always had jurisdiction over the advertising of foods, drugs and cosmetics, this jurisdiction was specifically reaffirmed by an amendment to the Federal Trade Act which became law March 21, 1938. In addition, the amendment relieved the Federal Trade Commission of the necessity of proving unfair competition. One important and perhaps regrettable effect of this legislation which singles out food, drug and cosmetic advertising from all other types of advertising is to preclude the possibility of a unified control of advertising as well as labeling by the Food and Drug Administration under any new Food and Drugs Act that may be enacted.

2. The law does not apply to cosmetics or therapeutic devices.

3. The definition of a drug is faulty.

4. The law contains no provision for safeguarding the public against dangerous drugs, either those inherently dangerous or those that are indirectly dangerous in causing the user, by means of advertising, to delay adequate treatment for serious conditions.

5. The law contains no provision whereby

the indiscriminate marketing of new and untried drugs can be controlled.

6. The fundamental right of the physician or the layman who acts as physician to himself to know what he is administering is not recognized by the law.

7. The law contains no prohibition against secret remedies. Only ten ingredients and their derivatives, if they happen to be present, are required to be declared.

8. The law does not require that drugs shall bear adequate directions and limitations for use, nor warning against probable misuse.

9. The law makes it necessary to prove that false therapeutic claims have been made with fraudulent intent.

10. The law does not provide adequate deterrents to violations or adequate punishment for such violations.

In short, it may be said that the Food and Drugs Act, which was passed in 1906, is as antique today as an automobile of that vintage.

And now we may look to the future. What are the prospects for an adequate Food and Drugs law?

The old Food and Drugs Act was a compromise measure emasculated and finally passed in the face of powerful opposition. During the thirty-one years that have elapsed since that time, the Food and Drug Administration has pressed unrelentingly for adequate revision of this weak law, but the same powerful opposition has successfully repulsed every effort to give the public the protection it should have. Today that opposition is more powerful than ever; it has thrown more money and more influence into the fight than ever before. You may ask "Why don't we know more about the shocking inadequacies of the protection we are getting, the economic cheats that run into the millions of dollars each year, the injuries and deaths that are the result of the present-day traffic in drugs?" You do not have to seek very far for the answer to this question. It took a national calamity that cost more than a hundred lives in one fell swoop to bring to the attention of the public the weakness of the present law. Advertising is the bread and butter of our newspapers, magazines, radio and other media for the dissemination of information. The influence of



## Syphilis and Psychiatry

EUGEN KAHN, M.D.

New Haven, Conn.

From the psychiatric point of view one may distinguish the role that syphilis plays in organic disease of the central nervous system from its role as a personality problem.

Nervous system lues, especially general paresis, is seen in a great variety of clinical pictures and courses due to onset, localization, intensity, and duration of the neuropathological process and to personality factors of an essentially constitutional nature, e.g., inclination to mood swings and probably the capacity of recuperating. Whatever the clinical picture of a general paretic may be, disturbance of memory and intellection is never absent.

The treatment of choice is malaria (either tertian or quartan). The patient must be in general good shape; patients with circulatory or respiratory disease should be excluded from malarial treatment. One lets the patient go through from 6 to 10 chills and then interrupts with quinine. One follows with tryparsamide for 50 to 75 weeks (starting with 1 gram, going up to and staying on 3 grams weekly). The fever treatment must be administered in a well controlled hospital environment. Tryparsamide can easily be given in the office if the total condition of the patient warrants it; the fundi ought to be checked regularly as there is danger of optic nerve atrophy. Constant serological checking of blood and cerebrospinal fluid is necessary.

Other methods of fever or heat treatment are mostly more expensive and apparently not so effective as malaria.

As a personality problem syphilis turns up in a threefold way; people are afraid of getting infected, people develop fear of the consequences of an acquired infection, and finally, people nurse the hypochondriacal idea of being infected. It is obvious that all these three possi-

bilities are occasionally encountered in otherwise well adjusted persons. Younger folks may rationalize their fears of the other sex for a time with the fear of "Social Disease." It is understandable that some thoughtful people are worried after acquiring lues. It is not surprising that medical students in the period of pre-professional hypochondriasis will fear to be luetics. In a goodly number of emotionally unstable individuals, however, such fears develop into a rather chronic, sometimes almost malignant, feature. They may poison the existence of these individuals for many years, and even rob some of them of all their joy of life.

However much it is necessary to individualize treatment of these patients, there are a few practical leads. Naturally these patients must be given most careful physical examinations including blood and fluid tests, and they should be informed in a quiet and kindly way of the findings. If the findings make anti-syphilitic treatment necessary, it has to be performed in a firm methodical way constantly accompanied by a psychotherapeutically oriented education of the patient. If no lues is present, psychotherapy is the only approach. The practitioner can, in such instances, achieve much by unshakable reassurance and by suggestion. In a few cases he will find behind the fear of lues certain motives, the disclosure and frank discussion of which may help his patient. These, as many other hypochondriacal patients, tax the resources and the patience of the doctor considerably. The practitioner will have to judge himself if and when he has to consult a psychiatrist or wants to refer his patient to a psychiatrist. It happens that such sufferers show after a time a tendency to give up the hypochondriacal attitude towards lues entirely — once in a while indeed only to start worrying about something else.

# First Aid Mindedness in the Treatment of Fractures<sup>\*†</sup>

C. E. YOUNT, M.D., Prescott, Arizona

There will occur over a million fractures on the nation's highways during the next twelve months, due to automobile accidents. Dr. A. D. Lazenby<sup>1</sup> estimates that a million and a half will be injured in industry in the same period of time; not all fractures, of course. Faced with such calamitous certainties there is today a real need for First Aid Mindedness on the part of physicians and the public.

Industry is bringing to her accident problem improved safety devices, organized and trained first aid, and the highly trained industrial surgeon. The injury frequency rate has declined 61 per cent in the past ten years and the injury severity rate has been reduced 43 per cent according to the report of the National Safety Council.<sup>2</sup>

On the other hand, contrast the many automobile accidents that will occur at the country cross-roads far from trained medical assistance and standardized hospitals. The physician in the smallest town and the cross-roads filling station attendant may be suddenly called up to render the most exacting first aid. Their knowledge and skill, or lack of them, may be determining factors in the outcome of many of these cases.

It was Shakespeare who popularized the idea of "Sermons in stones and good in everything." The greatest, I was about to say the only, good to come from the World War seems to be the improvement in fracture treatment. "The lessons learned<sup>3</sup> at such great cost have not been forgotten and today in our larger hospitals, debridement, direct skeletal traction, Thomas splint, overhead suspension, fixation in position of optimum function and roentgenographic control are rather common routine."

To these I would like to add the improvement in the emergency treatment of fractures. I hope that there is a gradual awakening of the public conscience to what constitutes adequate and

proper first aid in fractures. Moorehead states<sup>4</sup> that "Primarily in the interest of the patient, and also of the doctor and the public, it is necessary that the profession become acutely surgically minded in the care of the injured."

I believe that it is clearly our duty as medical men to be prepared ourselves and to educate the public, or that part of it likely to be concerned, to be acutely first aid minded in the care of the injured.

It took the British Medical officers something over a year to learn that in fractures of the femur they could reduce their high 80 per cent mortality to 20 per cent by prompt and adequate splinting. "Splint 'em where they lie" became the slogan which they passed on to us in 1917.

## Fracture Information Sources

I deal with only four of the many sources and methods of evaluating, disseminating and applying information concerning the emergency treatment of fractures.

1.—(a) In 1922 the American College of Surgeons formed a committee on fractures,<sup>5</sup> and this committee has been continuously active in promoting the better care of fractures. The committee now consists of forty-three outstanding fracture men in the United States and Canada. Their "Outline of the Treatment of Fractures" is intended to be a safe and ready reference manual for students, hospitals, internes, industrial surgeons and all those who are called upon for the occasional treatment of fractures. Dr. Charles L. Scudder is chairman of the Regional Subcommittee. His suggestions to the Regional Committee include the following:

"Medical Profession. The committee should use its influence to see that papers and demonstrations on fractures are presented before state, county and local medical societies, hospital staffs, groups of industrial surgeons, police surgeons, and fire surgeons. The regional fracture committee may well hold joint meetings

<sup>\*</sup>Read before the second Harlow Brooks Memorial Navajo Clinical Conference, held at Sage Memorial Hospital, Ganado, Arizona, Sept. 3-4, 1937.

<sup>†</sup>Reprinted from *Southwestern Medicine*, May, 1938, by permission of the publishers.



with the above societies and groups. At all of these meetings the importance of fixed traction in transportation should be stressed.

Lay Public. The committee should cooperate with the American Red Cross chapters in training groups in fixed traction methods, and in establishing emergency highway first aid stations. Proper equipment of ambulances and training of their personnel should be stimulated. These ambulances are under control of municipal, police, and fire departments, funeral directors, and industrial and private organizations. The committee should cooperate in training Boy Scouts."

1.—(b) The success of the "Primer on Fractures", edited by the Cooperative Committee on Fractures of the American Medical Association, now in its third edition (1933) and the ever increasing popularity of the demonstrations of fracture treatment at the annual meetings of the Association, may be interpreted as a healthy growth in First Aid Mindedness in Fracture treatment.

"For four consecutive sessions (1927 was the first year) the demonstrations of the treatment of fractures have been the center of an eager audience; usually seven booths were required. A large corps of physicians aided the general and advisory committees by giving demonstrations. The United States Army Medical Department generously cooperated by detailing soldiers on whom the demonstrations were made."

Two outstanding Arizona Surgeons, Drs. E. Payne Palmer and Joseph M. Greer, on the program here today, have served as demonstrators at the American Medical Association meetings and witnessed the interest and enthusiasm created by these demonstrations of fracture treatment.

2. *The American National Red Cross*, through its first aid and life saving service, is performing a timely and greatly needed public service in teaching first aid to thousands of lay students annually. "Never has the need for first<sup>6</sup> aid been greater than at present, when accident fatalities of the United States have reached such a proportion that, if those of a year were to happen in a single day it would plunge the entire nation into mourning as the greatest catastrophe in recorded history."

In this catastrophe we see the American Red Cross as one alleviating factor. The medical profession should back the annual Red Cross drive

for funds. We should urge them to place more trained first aid teachers in the field. Ten laymen should be trained where only one receives first aid instruction today because of a lack of funds.

Instruction in the American Red Cross First Aid course should be a part of the curriculum in all our upper grade schools. Even the college graduate will find his education incomplete without some knowledge of first aid. The chapter on fractures in the first aid text book has been completely revised by Drs. Scudder and Kennedy of the Fracture Committee of the American College of Surgeons. Two short paragraphs will convince you of the sanity of the text: "The position of the patient on the stretcher should be such that his particular injury will receive no further hurt." (p. 213) "The common practice of jackknifing a seriously injured person into the back seat of a passing car without regard to injuries and driving at a break neck speed to the hospital can not be too strongly condemned." (p. 224).

3. *The fracture work of the Association of American Railroads*. (Roscoe C. Webb<sup>7</sup>). "During the past few years the American College of Surgeons and various other surgical organizations throughout the world have come to recognize that the care of fractures is a problem which needs more study and attention. First aid and transportation splints as approved by the Fracture Committee of the College of Surgeons have been recommended to all railroads. Some railroads have placed these splints with all local surgeons."

The Chicago ordinance concerning fracture equipment for ambulances has been recommended by the Committee, and this ordinance has been adopted by some other cities through the efforts of local railroad surgeons: "Be it ordained by the City Council of the City of Chicago, an ordinance 2343-a-Attendant-splints required. No person, firm or corporation shall operate or cause to be operated any ambulance, public or private, or any other vehicle commonly used for the transportation or conveyance of the sick or injured, without having such vehicle equipped with a set of simple first aid and splint appliances approved by the board of health and having in attendance at all times such vehicle is in use, a person who has obtained a certificate of fitness as an ambulance attendant from the board of health. Any person desiring a certifi-

cate as an ambulance attendant shall make application in writing therefor to the Board of health. Before the issuance of any such certificate the applicant therefor must present evidence of his qualifications to fill such position and must demonstrate to the satisfaction of the board of health his ability to render emergency first aid and to apply approved splints to arm and leg fractures."

The Great Northern Railway Company's Surgeon's fracture report, paragraph 5, "First Aid and Transportation," is most modern and erudite.

"Was he splinted where he was lying? If the arm or forearm bones were fractured, was a hinged ring (Thomas-Murray) traction splint applied? If thigh or leg bones were fractured, was a hinged half ring traction splint (Keller-Blake) applied? If the fracture was in a thoracic or lumbar vertebra, was he carried face downward when moved? If other first aid splints were used, please describe."

This company's "General Directions for Guidance of X-ray Work in Fractures" is most helpful as to views desired and liberal as to the number of views required.

4. (a) *Medical men as instructors or advisors in first aid.* Quoting Byron Stookey's "Treatment of Fracture Dislocations and Spinal Cord Injury"<sup>8</sup>:

"Immediate first aid, immediate recognition of spinal cord trauma, at the site of the accident is imperative, since careless transportation may convert a relatively slight injury into an irremediable lesion. I have known of paralysed patients being picked up and transported to the hospital by automobile in an upright position, certainly jeopardizing whatever may have remained of spinal cord continuity. Since physicians are not always on hand to make an immediate diagnosis, the lay public must be instructed that any injured patient unable to move arms and legs, or legs alone, should not be moved until competent aid arrives. All too often a well meaning Good Samaritan will try to lift the patient and carry him to a more comfortable place, entirely ignorant of the fact that further flexion of the head on the trunk may result in severe and permanent damage to the spinal cord. Under these circumstances a few minutes in presumably greater comfort may mean a lifetime of paralysis. Another unfortunate procedure all

too often seen in well meant attempts at first aid consists in lifting the patient's head to enable him to drink, thus bringing the chin onto the chest, which, in the presence of a fracture dislocation of the cervical vertebrae may further destroy whatever cord function remains. The immediate handling of fracture dislocation with spinal cord injury is so important that those who are likely to render first aid must be made aware of the danger inherent in such accidents.

A campaign of public education is imperative, that the layman may be informed on this subject just as he has been on *resuscitation of a drowning man*. It can not be too strongly emphasized that these patients should be left alone or moved under skilled direction."

4. (b) James E. M. Thomson's "Fractures of the Dorsal and Lumbar Vertebrae"<sup>9</sup> is next quoted:

"The same basic principles respecting treatment of fractures of the long bones apply to treatment of fractures of the spine. Therefore, we believe that the treatment should begin at the place where the injury occurred. The intelligent recognition and first aid handling of patients with fractured spines, or those who are suspected of having such an injury, bear a direct relation in many instances to the ultimate result, the amount of disability, and the ability of the patient again to resume his former occupation. The bravado of the ignorant, thoughtless first aider, who drags an automobile crash victim by the shoulders, from a wreck, with his hands in the latter's armpits, and lifts him to the sitting position, or asks the man who has fallen from a telegraph pole if he can stand up, and helps him to do so, is to be condemned. Far too often inestimable damage is done by hastily shoveling a patient into the back seat of an automobile and crouching him over on his trip to the hospital, or by dragging a man by his arms and feet to the litter of an ambulance in the hurry and confusion of doing a 'good turn'.

"Pain in the back after a trivial injury, twist, sprain, or lift must not be dismissed lightly, because severe vertebral damage has resulted from such torsion forces. Therefore, if the character of the injury is such that the back might have been fractured, whether the patient presents severe symptoms or not, the case is worthy of intelligent handling from the place of accident to the hospital. Of course, if paralysis of the



extremities exists, the diagnosis is not difficult.

"The foremost cause of fracture of the spine is the jack-knifing forward thrust, or flexion of the trunk on itself, no matter how the force is delivered. Therefore, in rendering the initial treatment and first aid, two things are essential: First, not to increase the deformity by further jack-knifing the back and causing possible cord injury; and second to immobilize the spine appropriately until proper treatment can be instituted. To accomplish this one should roll the patient, if he is lying on his back or side, onto a board or litter into the prone position. With his hands above the head a certain amount of support and comfort is given. If he is lifted or turned, the lower extremities, trunk, and head should be supported in the same horizontal plane. Once established on the transportation litter, whatever it be, door, plank, cot, or stretcher, in the prone position, it would be far better that he remain there until the diagnosis is made than to have him moved to the slab of a receiving ward for removal of the clothing, then to an emergency bed, later to the X-ray table, and mauled to and fro, before an adequate diagnosis is made and treatment of the fracture instituted."

Now let us briefly consider what actually happens when, say, a long bone is broken in an automobile accident.<sup>10</sup> "The actual conditions at the site of the fracture are of great importance in establishing the general principles of treatment. They may vary from a simple crack in the bone with no displacement and only the slight disturbance of the surrounding tissue to a lesion of the greatest severity with marked displacement of the fragments and with much damage to all of the neighboring tissues. It may be necessary to make an immediate decision between amputation and conservative treatment and in such a case the attendant must consider the gross damage and the question of blood supply to the injured part. Such problems if they occur where no consultant is available must be left to the judgment of the individual practitioner, to be handled as his skill and his equipment may dictate."

Ordinarily when a bone is broken, the endo-

steum and the periosteum are torn and the surrounding soft parts are more or less damaged. Blood vessels and lymphatics are ruptured, and the tissue becomes infiltrated and engorged with blood, lymph and inflammatory exudate. This causes swelling, pain, and circulatory disturbances, which are increased by handling of the extremity and by movement of the fragments of bone. The blood, lymph and exudate are rich in fibrinogen, and rapidly form a fibrinous clot which begins to become organized in forty-eight hours. Some of the bone cells on the ends of the fragments and some of the soft tissues are usually killed by the traumatism and produce ferments which autolyze these dead cells. A calcium compound derived from the autolyzed bone or according to some observers from the blood stream, permeates the tissue fluids in the region of the fracture. This process is slow, and occupies several days.

The swelling and infiltration reach their maximum in eight to twelve hours, and then circulatory disturbance from pressure and thrombosis adds an actual edema to the picture. The clotting of blood and exudate leave a residue of their fluid contents which gradually diffuses toward the surface. This residue is important because the more fluid whether exudate or transudate, present at the site of fracture, the less efficient is the organization of the fibrin.

In addition to this common picture there may be associated injuries of contiguous muscles, vessels, joints, tendons, tendon sheaths, and viscera, which must be considered as part of the lesion. Blebs and bullae may appear on the skin and add materially to the difficulty of treatment. All of these factors must be considered in determining the form of treatment.

Visualize this pathology of soft parts and bones as occurring to a greater or less degree in every fracture. Add to this, in many cases, shock from loss of blood, pain and other traumas, and "'Tis a consummation devoutly to be wished", that prompt, adequate and intelligent first aid be available in every case of fracture.

*(Continued on Page 519)*

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## Re-education of the Problem Drinker\*

CHARLES H. DURFEE, Ph.D., Wakefield, Rhode Island†

I feel greatly honored, that you should invite me, a layman, to address your Society upon the psychological aspects of the therapy of alcoholism. It seems to me still another evidence of the growing concept in medicine today of what the late Dr. William A. White so aptly termed the "organism-as-a-whole" approach.

More and more we are seeing the application of the Gestalt principle — first taken over from physics — to the diagnosis and therapy of human ills as well. More and more we are coming to understand that to deal with any disorder of the organism, whether on the surface it seems primarily somatic or mental, we must consider not the body alone, not the mind alone, but *both* operating together as different aspects of the same whole.

This means that to get a significant picture of the excessive drinker's problem, it is necessary to study his body, mind, heredity and environment, which may require the cooperation of physician, psychiatrist and educational psychologist.

It is to the family physician, as many of you can probably attest from sad experience, that the problem is usually brought first; and this, generally, by the patient's distraught family during a crisis in one of his drinking bouts. You may find yourself confronted then with anything ranging from an acute case of "jitters" to delirium tremens or a Korsakoff psychosis, calling for the most skillful medical attention. But after you have pulled your patient through, then what? He is sober, to be sure, undoubtedly contrite, but is he cured? The chances are, he has been put into condition only to renew his drinking. Or, suppose the drinker himself, in one of his more rational moments, comes to you for help. What procedure is then indicated? Let us assume that you employ the same method you would with any other case coming to consult you. First, you look at your patient to see how his discomfort is manifested. The excessive drinker's outstanding manifestation, so far as he and his family are concerned, is that

he drinks alcohol in such a way as to interfere disastrously with both his life and their's. To them, that is his whole difficulty. But we know that a sick man never manifests his sickness in only one way. And we also know that the manifestations may not be the illness. They are only signs. Pains in the left arm do not necessarily mean that there is pathology in the arm. It is sometimes a sign of something else. And the only way you can determine what it is a sign of is to look for other signs. So with the alcoholic problem, you will look for other signs; and you will find plenty of them. You may find that if the patient goes without a drink for a few hours he begins to shake and tremble. You may find that there are a number of physiological changes occurring in the patient at this time. You recognize these physiological changes as the bodily aspect of strong fear or panic. The patient becomes highly emotional when he is without a drink; he cannot start the day without an "eye-opener"; he needs a "bracer" whenever he has to meet even the smallest demands of his daily life. There may be other mental signs: the patient may be utterly lacking in self-confidence, believe he is completely inadequate to deal with the world, consider himself a failure in life, a bum, and his family better off without him. He may be thoroughly ashamed of himself, scorning himself, saying he has no will-power; or he may be resentful and blame his family situation, business conditions, his state of health, anything at all, as the cause of his drinking. For the drinker is the prize rationalizer. But of the real cause of his drinking and of the underlying factors he has no understanding. All he knows is that he wants passionately to get rid of his habit but has little hope of it. He has tried time and again to stop drinking, only to find himself sinking deeper into the morass of misery and self-degradation. He is timid, irritable, has little appetite and is very easily fatigued.

A physical examination will doubtless point to the necessity for an increase in nutrition, — especially vitamins — and fluid intake, for normal elimination and more adequate rest. This

\*Read at the Annual Meeting, Connecticut State Medical Society, Groton, June 1-2, 1938.

†Author of "To Drink Or Not To Drink".



will help the patient physically, and to that extent mentally, but not touch the main psychological trouble. Moreover, to achieve this physical improvement, the alcohol must be completely withdrawn. And this the patient will not or cannot manage unaided. He must then, either be forced to give it up or helped to carry on while he does so voluntarily.

The physician's role at this point is one of the utmost importance. Because of the nature of his relationship to the patient and his family, and because he has stepped into the picture at the strategic moment, he is peculiarly in a position to advise and initiate a program of constructive rehabilitation and to create understanding and hope where both are usually lacking. He must make the patient see that merely sobering up is no solution to his problem; that he needs long and expert professional aid to get at its root; that his trouble is due, fundamentally, not to alcohol, but to personality factors out of his control; and that the chances are good that he can be helped if he is willing to make an honest effort to cooperate.

Where the physician is dealing with a marked abnormal behavior picture, he will undoubtedly refer his patient to a psychiatrist, who may recommend custodial care. But where the patient's emotional stability and ability to face reality seem good enough to respond to a process of re-education, he may suggest that he place himself under the care of an educational psychologist who will teach him (and I use the word "teach" advisedly) a better understanding of himself and of the motivations behind his conduct, and give him an opportunity to practice more adequate emotional attitudes with which to face life.

As the term "psychologist" has sometimes been abused, I prefer to place the emphasis on the educational aspects of my work and to think of myself primarily as a teacher, an educator of the emotions, in the same sense that our school teachers are educators of the intellect (and should be of the emotions too!).

In this connection, I might explain why I called this paper "Re-education of the Problem-Drinker" instead of perhaps the more usual "Treatment of the Alcoholic." I wished to make it quite clear that we would be dealing with a learning process — a process of unlearning and

relearning, if you will — and I feared that the term "treatment" might be ambiguous. I did not wish, even by inference, to imply that I "treat" my students-of-living in the sense that you treat your patients, but I did wish to emphasize that I acutally do not treat them at all, do not "do" something to them, but rather give them an opportunity for self-government under guidance, much in the manner of our progressive schools.

My choice of the term "problem-drinker" instead of "alcoholic" was equally deliberate. It is a term which I coined for a variety of reasons. "Alcoholic" has an unpleasant ring. To begin with, it has too long been associated with moral condemnation; both in popular and professional opinion the alcoholic has been most unfairly stigmatized as weak, instead of understood as sick; whereas, actually he is often a man of character and real attainments. "Problem-drinker," adapted from the expression "problem-child," seemed to me a kinder and more useful term. "Problem-adult" would have been still better, since the alcohol is often the least part of the whole picture, but as it is usually the most conspicuous part, "problem-drinker" is perhaps a handier label.

Then, too, "alcoholic" refers commonly only to those who drink greatly to excess and cannot control their drinking; whereas alcohol is a real problem to many people who may not actually fall into the category of "alcoholic" but who need help nevertheless.

Lastly, I preferred the term "problem-drinker" because of the pessimism with which the cure of the alcoholic is generally regarded. That this pessimism has been justified in great part the record of our failure in the therapy of alcoholism only too tragically bears witness. It is only lately that a psychological approach to the difficulties of the problem-drinker allows us to place certain selected cases — but by no means a small group — in a more hopeful category.

My time being limited I should like to confine my discussion to conjecturing why past efforts to help the problem-drinker may have failed and suggest new lines of attack which have met with some promise of success.

It seems to me that there are four main reasons for our failure to help the drinker. 1. We have

not known how to select our cases for re-education. 2. We have not sufficiently recognized the effect of institutional confinement on the drinker. 3. We have placed too much emphasis on overcoming the drink habit instead of the personality difficulty and have kept the alcohol too much in the foreground. 4. We have not sufficiently understood the psychological mechanisms involved in habit formation. These four points will be discussed in turn.

#### 1. Selection of cases.

Granted that "cure" of the problem-drinker lies in a process of re-education, who constitute suitable subjects for re-education? Who do not? It is not only a waste of time, energy and money to try to help those who have not the ability to respond to such a process, but their failure reflects on the whole class of those who could be helped and stacks the cards of unfavorable prognosis against them.

Obviously, neither the psychotic — among whom must be counted the true dipsomaniac or periodic drinker — nor the feeble-minded, will be able to respond to an educational approach. Nor will the so-called constitutional inferior be able to cooperate adequately, though this is sometimes hard to understand by reason of his charm and often high intellectual attainments. For the psychopath has no real insight into his problem, he has not the ability to be completely honest, and must be considered lacking in those personality constituents upon which any lasting reconstructive effort can be built. Nor can too favorable a prognosis be held out for certain types not as extreme as the above but whom experience has shown too unstable or deficient for successful re-education.

There remains, however, a large group of excessive drinkers whose personalities are not so inherently weak or defective as warped by an unfavorable childhood environment. These are the educator's field and will respond most gratifyingly to proper psychological handling. They are to be recruited from the ranks of the psycho-neurotics and those who might be described loosely as poorly organized personalities. In the main, they are individuals who have never grown up emotionally, who find in alcohol escape from the responsibilities of adult life.

A point should be made as to those cases where there is indication of a conflict deeply

buried in the unconscious. Here the special technique of psychoanalysis may be required. Such individuals cannot be considered ready for an educational approach such as we are here outlining, which, while it refers to the past, does not as a rule probe deeply but places emphasis rather on present adjustment.

If you were to ask what are the main earmarks of fitness for a process of psychological reconstruction, what are the entrance requirements for a School of Adult Re-education, I would answer, not, as is often thought, the nature of a man's drinking or his drinking history, its length, or severity, (so long as there is no mental or physical deterioration), but rather the nature of his social history, his work history, and above all, his present mental attitude, his *insight* into his problem. By this I mean, is he convinced that he needs help and wants help, entertains no reservations on this score? Does he come freely for help of his own accord, or does he do so because of ulterior motives? Is he willing and able to be completely honest? Is he willing and able to cooperate to the fullest extent? For re-educating a man emotionally is no different from educating a child's mind. You cannot simply shovel facts in. There must be assimilation and active participation on the part of the pupil or the process is meaningless, mechanical, to be forgotten almost as quickly as it is over.

Now, the fulfillment of these requirements usually can be ascertained in the first interview, and I might say that one tends to grow very expert in judging its authenticity. However, one can go astray. It is not always easy, for instance, to determine whether one is dealing with a psychopath and only a test period sometimes reveals the true nature of a case. But that test period is usually brief. Experience teaches one to be wary of an eagerness for help that is too eager, an expressed desire to cooperate that is too facile. One tends to question the too-perfect mental attitude, the too-easy compliance of a patient. Where one is apt to err is with those cases where the human setting is so appealing that it is a challenge to accept the problem of fitting the interior to the promise of the exterior.

Of course, you might argue, that by accepting only such cases who wish to be helped and who will voluntarily and honestly cooperate, we are limiting ourselves to the easiest ones with whom



there should be a minimum of failure by any method. This, however, does not follow. While I have but few statistics to back my assertion, I would be tempted to say that a very large proportion of problem-drinkers who now leave our institutions only to revert to their old habits, belong to the potentially cooperative class who could have been helped in an environment of personal liberty. Certainly, many a case with an unfavorable hospital record has responded most gratifyingly in a non-institutional environment.

## 2. Effect of institutional confinement.

We are coming to recognize that institutionalizing a drinker, though unfortunately necessary in some cases, often starts his treatment under a terrific handicap. Why is this? Because confinement seems to call forth resistance that blocks any psychological work at the outset. It is true of most people, but it seems especially true of problem-drinkers, that they chafe under restriction. Just freedom — the liberation of his frustrated spirit — is what the drinker seeks through alcohol. To deprive him of his physical freedom on top of removing his psychic Open-Sesame, often makes of him a resentful, cunning animal at bay. It may take months to break down his resistance and to win him over into a receptive mood for treatment. Then, when he at last recognizes the need for cooperation, the chances are that he will be ready for dismissal and leave without benefit of educational work.

The profound effect of restriction of freedom on the individual was emphasized in another connection by Professor Henderson of the University of Edinburgh, in one of his recently delivered Salmon Memorial lectures, when he said:

"We know from the study not merely of the problem-child but of the normal child how large a part frustration may play in creating habit-responses of a terrifying and alarming nature, and how when restriction is removed and free scope is given for individual expression much benefit occurs.

"We see such reactions at all stages of life, in the nursery, the school, the university, the factory and whenever liberty is curtailed to an extent that proves intolerable. Society, instead of attempting to understand the situation, is apt to deal with it by increasing restriction, and almost inevitably greater turbulence is produced."

And society, I might add, by locking up the drinker and punishing him for his misdeeds, is just to that extent responsible for the long record of its failure with him. Not only is his resentment apt to block re-educational efforts, but he sometimes comes to lean too heavily on the authority and protection that the institution represents. He loses, rather than gains, confidence for self-direction. The institution cannot prepare him to stand on his own feet when he comes to re-enter his world of easy availability of alcohol. What he needs is opportunity to learn to live without alcohol, even though it is all about him; to prove to himself that alcohol is not a necessity or temptation to him. This he cannot do in the alcohol-proofed environment of the hospital.

An atmosphere of freedom, on the other hand, promotes the self-development and self-direction of the patient. It is a challenge to his sense of adult responsibility and calls forth in him a wholesome desire to help himself. It provides the elements of normal life, which in our present social set-up includes proximity to alcohol.

By an atmosphere of freedom and normal surroundings, I do not necessarily mean the home. It is of course possible to re-educate a man if he remains at home, perhaps even at his job, but the process is greatly facilitated by a complete change of scene and time-out from the routine of his daily life. The home situation contains too many emotional associations, is tied up in too many ways with the history of his failures. What he needs is to build up new, wholesome associations and this he can most easily do in a new environment.

Moreover, the home-and-business setting cannot provide that essential for rehabilitation, an understanding atmosphere, where the patient will be protected for the time being from the competition of the outside world and in which he will feel adequate — approved, secure, successful — as he probably never did in the outside world.

I have found a small farm the answer to the need for a controlled though unrestricted environment. The simple life, the return to nature, the outdoor work, the challenge to responsibility and cooperation, all seem to lead to most encouraging results. I trust you will excuse my referring to my farm from time to time. I do so reluctantly, but it is the frame into which I

can best insert the picture of the re-educational work I am trying to describe here.

How unrestricted is this particular farm environment? As unrestricted as would be, let us say, a sojourn at an inn, except for the guiding presence of the educator in the background. At my farm, the patients sleep by themselves in a Guest House or in the farm buildings, quite unattended. Many of them have their own cars and are free to come and go as they wish, except, of course, insofar as it would interrupt their duties or break up the rhythm of the farm activities. They walk down to the village alone, go shopping, attend the movies, are free to accept invitations from friends, so long, again, as these do not interfere with the routine. Many men keep up their business contacts, attend necessary conferences, handle their correspondence from the farm. When I go by car to New York, or am called on any trips, I usually invite one or two along, and leave them completely on their own in the city to try their wings out. These excursions have without exception been most successful.

As to the question of freedom to drink, while complete abstinence is the objective, alcohol is not removed from the scene. It cannot be removed from the life of the patient when he returns to his normal world; therefore, it is essential that he learn to get on without it even though it is available. Moreover, when alcohol is withheld from a patient, it tends to terrify him and he can think of nothing but wanting it.

### 3. Placing of proper emphasis.

In my opinion, perhaps the greatest error committed by the therapy of alcoholism in the past, is that it placed too much emphasis on the drinking instead of regarding the problem as one of total mental health. The object of treatment was frankly to "break the habit." Even today, when alcoholism is generally recognized as a symptom of an underlying maladjustment, it is surprising how often the symptom rather than the cause is attacked. Now, we all know that fighting symptoms is useless. If you are dealing with a tic in a child, to keep telling him that he must not twitch would only aggravate his tic. It is his general nervous condition which you would tackle, knowing that when this is improved, the tic will disappear of itself.

It is no different with excessive drinking. Effort should be concentrated, not on the drink-

ing, but on the underlying condition which has caused recourse to it. The whole personality of the individual must be studied. What manner of man is he aside from his drinking? Does he suffer from feelings of insecurity or inferiority? Does he meet situations emotionally instead of realistically? Does he just drift along, with little plan or purpose to his life? Is he a creature of excesses who does not know the meaning of moderation and balanced living? Whatever his personality difficulty, its roots usually go back far into his childhood. It may be that he has never known the security of love and approval in his youth. It may be that he has always felt at a disadvantage through some physical or mental handicap. It may be that his parents set too high a goal for him, or, on the other hand, expected too little of him. Often there will be found a background of over-protection. An individual who has never learned to "take it" when young, will find it hard to meet the demands of an adult world. The fatal combination of mother solicitude and father-dominance occurs again and again in histories of drinkers, resulting in resentment toward the father — and through him, toward all authority — or in too-strong a mother-attachment. Here may be the basis for many of the sex mal-adjustments so often associated with excessive drinking.

Discussion and interpretation clarify these difficulties. There may be a mental conflict which must be brought to light and re-valued with adult eyes. Or, a certain group whom I classify roughly as "careless drinkers", may need to learn a better management of their lives. These are the problem-drinkers who cannot strictly be considered neurotic or mal-adjusted (except in the sense that we all are, more or less), but who must learn to live within their limitations, to accept themselves, to organize their lives properly. Among this group are to be found those sensitive individuals, often with a good deal of temperament, who tend to over-do, who quickly get tense, who seek in alcohol a means of relaxation; and, at the opposite pole, those easy-going, sociable souls, who are lightly carried away by their environment, or easily bored because of lack of resources or organized plan of living. These drift into habit-drinking just as surely as their more complicated brothers, the escape-drinkers, to wake up one fine day and discover that they can no longer



stop when they wish. These, no less, are in need of re-education.

Such are some of the personality factors at the basis of excessive drinking, and it is these, not the drinking, which must be corrected. But although we all know what comes of reminding the child with a tic not to twitch his face, how often alcoholic therapy still bristles with do's and don'ts centering around drinking! The individual is still thought of primarily as a drinker, and the idea kept before him at all times, that what he needs to learn is not to drink.

Personally, I emphasize the alcohol as little as possible, rarely discuss drinking with my patients unless they themselves refer to it. In one of my first talks I tell them that they should not fight their habit or use will-power to overcome it, that concentrating on it only keeps it in mind. I explain to them that the fact that they have been unable to control their drinking is no sign of moral weakness or lack of character; that, actually, they are as much in need of help as a person with a physical illness. I point out to them that their drinking is a symptom of a personality difficulty and that when this has been corrected, the drinking will take care of itself. What they need to achieve is an understanding of themselves as well as new emotional attitudes. They are to think of themselves not so much as being "off" alcohol, as "on" to a new way of life.

So everything is done to make alcohol as little of an issue as possible. All the men know that they may have a drink at any time, just for the asking. Only, they never ask for it. On the contrary, they report with amazement that they rarely even think of it. Knowing they can get alcohol whenever they wish, they are not terrified by the thought of being caught without it. Furthermore, alcohol is never immediately withdrawn from a new patient; the men in effect are allowed to taper themselves off (of course under the physician's supervision), by which I mean, it is they who have the refusal of the last drink. Incredible as it may sound, I have yet to find a man who does not stop drinking of his own accord within three days. The morning his glass of whiskey stands untouched at his bedside is a proud one for him. Incidentally, we rarely find sedatives necessary for this tapering-off process.

To prove to an individual that alcohol need spell no terror to him, he is given the opportunity — after he has been with us for some

time — of helping to taper-off a newcomer. Being entrusted with a bottle, and finding that the actual handling of alcohol affects him as little as though he were handling a bottle of milk, boosts his morale tremendously. If cocktails are served at social gatherings in my household, I often include my patients. Thus they learn to make their way socially without alcohol, and find that they can enjoy themselves and not feel self-conscious with a glass of fruit juice in hand. Discovering that they can live through this situation without difficulty removes any lingering doubt in their minds as to how they might react under similar circumstances at home. Where cocktails are a part of the normal social life of a man, I am always in complete agreement that he continue to serve them. For when once he is adjusted, he will accept the fact that he cannot take alcohol, just as the diabetic accepts his limitation in another respect.

For a problem-drinker to be "adjusted" means not only that he gain an understanding of himself, acquire insight into the true meaning of his behavior; it means also that he acquire new habits. For no matter how well a person may learn to "know himself," he is still in many ways the same individual, bound by countless associations of the past, his actions affected, despite himself, by inexorable habit-patterns he has built up over the years. He must still learn to face life without alcohol, to forget his old habits, to learn new habits of thought and action. And to establish these new habits firmly, he must practice them over a considerable period of time.

4. Understanding the psychological mechanisms involved.

How do we learn anything? How do we establish habits? To begin with, there must be a first experience. Then there must be repetition. Nothing is learned without practice, and, conversely, anything that is practised will be learned. No matter whether one intends to learn or not, he will learn if he practises. As Professor Robert S. Woodworth of Columbia University remarks, "We learn by doing."

There is always a first time when an individual reacts emotionally to an unpleasant situation. If he gains satisfaction through it, he repeats it. In the end, the chances are he learns to react emotionally not only to that situation, but to all situations in which he is crossed. Where in his childhood he learns that he can duck the dis-

agreeable by means of tantrums or other emotional behavior, in adulthood he discovers in alcohol another means of escape. Through practice he becomes a problem-drinker. It is unfortunate for him that intentions do not count, for certainly no one intends to learn to be a problem-drinker.

The problem-drinker has probably had his drinking habit for some years before he comes for help, and his faulty emotional attitudes still longer. By practice he has thoroughly learned, and by practice is maintaining, both his drinking and his emotional reactions, on a very high level of learning.

He gets his practice from several sources. Two are what Chappell, analyzing the development of high emotional activity in his recently published book "In the Name of Common Sense", has called the "ideational environment" and the "conversational environment". If we could read the problem-drinker's thoughts, we would probably find that he is dwelling, a good part of the time, on ideas of self-pity, anxiety, inadequacy, resentment,— and on alcohol. His every thought is laden with emotion — and on the possibility of relieving it through a drink. The more he dwells on these thoughts, the better he learns them and the more easily the ideas and emotions are aroused. His conversation, too, and that of his environment, turns again and again to drinking. There are the nostalgic reminiscences of parties past, anticipation of parties to come, emphasis on "high times" and "celebrating" and "we must get together soon." There is the drinker's insistence on how much he needs a drink; and his family's equal insistence that he has had enough. The problem-drinker certainly gets plenty of review or practice on the subject, through speech and thought, and plenty of practice through action,— that is, through constant drinking. It is no wonder that he cannot help himself.

Have you ever stopped to consider the reasons why a man cannot stop drinking of himself? Aside from the narcotic effect of the alcohol, it is not a question of his "putting his mind to it." That is, actually, just the trouble. For when he makes up his mind that he is going to stop, this involves concentration. Unfortunately, he concentrates on the alcohol,— and with what result? Through concentration, through thinking alcohol, through dwelling on how much he wants

a drink but won't take one, through boasting that he is on the wagon, he becomes literally alcohol-minded; he is practicing alcohol-thoughts most of the time. But the underlying emotional condition which has caused his drinking, is in no way changed; if anything, through the strain of his fighting himself, he is more highly emotional than ever. Any ordinary situation now, which the average person could meet or circumvent without giving it a thought, is apt to throw him into a panic and the chances are that he will find himself drinking again without knowing why.

Constructive steps lie in two directions: in non-practice or forgetting of the faulty emotional attitudes and behavior, and in practice of wholesome attitudes and behavior. It is clear now why it is so important not to stress drinking, why it is only common-sense to see that the drinker forgets alcohol as quickly as possible. What we should teach him is not to balance precariously on the water wagon but to walk securely on his own feet. He needs to practice a non-alcoholic way of living, to practice mature emotional attitudes which will enable him to meet the situations of his daily life realistically. And this practice he can best get in an environment where he is at once protected and yet has free scope for learning, as in the special small world of the farm.

We said before, the patient can be re-educated while remaining at home but the home atmosphere is bound to be emotional. Also, it is fraught with alcohol-associations. The patient has been conditioned to expect a drink at certain hours and places and under certain circumstances, until these occasions have become almost compulsive in their effect on him. The rhythm of his drinking must be broken up and this is most easily accomplished in a new setting.

At the farm a man is drawn into activities that absorb him; the old associations of time and place do not intrude themselves. These activities provide naturally motivated opportunities to practice a new way of life. They *need* to be done. Each person's share represents an experience in cooperative living. The wholesome work-routine brings about improved physical fitness; moreover, it is of immeasurable psychological value as well. Here, in small situations, it can often be seen why the individual failed in the larger situations of his life. Here, on a small



scale, he can practice those emotional attitudes and work-habits which will help him to meet successfully the conditions of his normal world. How a man attacks a job, how he plans it, how he sticks to it despite obstacles, how he accepts criticism of it, becomes material for study and discussion. If he cannot adjust himself here, under simplified conditions, he certainly will not be able to do so in the outside world. The idea is not to make a farmer or a strong-armed handi-man of him. True, he may, through his new activities, develop new interests and hobbies.

The main point is that, in doing the farm chores, in digging a ditch, in keeping a watchful eye over a brood of young ducks, the patient is learning new work-attitudes: to absorb himself in a task, to assume responsibility, to persevere even when things are not to his liking, to know the meaning of self-discipline. It is not the perfection of the truck-garden, but the spirit that went into it, that counts.

Again, the individual's adjustment to the other patients provides opportunity to practice social adaptation in a small group under specially favored circumstances. Incidentally, I limit this group to six or eight men, as that is all that I have found can be handled successfully by one teacher at a time.

The group acts as a most constructive therapeutic medium. Its spirit is that of a boarding school; the patients are always referred to, and refer to themselves, as "the boys"; first names are the order from the moment of a newcomer's arrival, humorously affectionate or barbed nick-names follow; jokes are perpetrated on each other, the men kid and rough-house—and—discipline each other. For these grown "boys" literally educate each other much as boys do in prep-school where they learn to "take it" from the other fellows as they never would from the headmaster. A man who may always have retired into the sulks when he did not get what he wanted, will not soon repeat his offense after the razzing of his mates. Another, who may have been in the habit of flying off the handle and becoming loudly aggressive, will be quickly "piped-down" by those who won't stand for such behavior. That he will "pipe-down", nine times out of ten, is because he recognizes in the group an authority of which he is a part and whose approval he seeks; whereas the chances

are good that he would strongly oppose any arbitrary authority imposed from without.

But the group acts as more than a disciplinary force. It is of greatest value in encouraging the patient. By the force of example he becomes convinced of the possibility of rehabilitation. Older patients, in trying to help him, help themselves by practicing a sense of responsibility to others. Graduates, returning, offer concrete evidence that "it can be done" in the outside world too.

Let us take a few illustrations of how this occupational-and-social therapy works out.

John, 36, is an only child, the product of quarreling parents, whom he early learned to play against each other to get what he wanted. If he was crossed he just yelled till he got it. As a grown man he found that this technique did not work. When his yells brought no results, he discovered that he could forget his sense of abuse and bewilderment in alcohol.

We were digging a ditch to lay some pipes when his pickaxe hit a rock. He tried to dig under it but made no headway. I could hear him pant with irritation. He tried once more. Bang! His tool came down on the rock with such force that the wooden handle broke. He stalked off almost blind with fury.

The work on the ditch continued. After a half-hour he rather sheepishly rejoined us. No comment was made as he took up a shovel and got to work again. Later, when he was in a quiet, receptive mood, we discussed the incident.

"That is the way it has always been with me," he said. "I just can't seem to help it. I tried to learn how to play tennis, but every time I missed the ball, I would smash the next one out of the court, so that I finally gave it up."

He was quite objective about it and we tried to work out a plan by which he would be able to "help it." I pointed out to him that his returning to the group and rejoining the work on the ditch was a great step forward from the last time when he had been irritable and unpleasant for a whole day; that each time he controlled himself better, he was laying the foundation for a better life-technique. He saw, in discussing his childhood, that while he took advantage of his parents' quarrels, the disharmony of his home left him with a great sense of insecurity. This I now tried to overcome by encouraging him in every way and commending his efforts. His

acceptance as an equal in the group also set him up greatly. He had never played with other children in his youth and had always felt at a disadvantage in any social situation. Now he learned how to make his way with others, not painlessly, to be sure, but under circumstances less trying than in the outside world.

Gordon, 42, a big bruiser nicknamed "Babe", was given to swaggering when he came. He got a bad start with the other men by boasting of his amorous adventures. He strutted his stuff with me also during our first talks; then, as he settled down to the farm routine, developed an exaggerated deferential attitude that was almost comical. He would run like a child with every little thing for praise and approval, and would loudly upbraid himself for being so dumb as to have done this or that wrong. I gave him just one job at a time, for which he was held completely responsible and at which he became proficient. He took a new patient under his wing with a touching devotion. In our talks together he came to see that behind his behavior with women, his cheap bluster, his childish play for attention, lay a terrific need and fear to assert his manhood. His mother, whom he adored, had not only kept him dependent on her, but had transmitted to him a prudish fear of sex which had set up a great conflict in him. His work at the farm gave him his first opportunity for self-direction and many of his misconceptions as to sexual matters were cleared up by frank discussion.

Fred, 48, had a passion for losing the show. During his first meal after arrival, he took it upon himself to set one of the boys right as to the care of the bees. He was an excellent, methodical worker so long as he worked alone or was in absolute charge of the group. But he made life so miserable for the others that they struck at working with him. He was impatient at their mistakes, intolerant of any way other than his own; would snatch a tool from another's hand if it was not being used as he thought proper. Despite the fact that he was alcohol" but "Be on your guard against getting

an excellent merchandising man, he had lost job after job through this very trait. By slow stages he was brought to cooperate and consider the other fellow's viewpoint. Virtual ostracism by the group for a while contributed its beneficial effect.

With Fred there was another problem which it has been my experience to meet frequently with drinkers. He would grow extremely restless at times, feel as though he could "jump out of his skin", as he put it. In the past he had always taken recourse to alcohol at such times, the drink affording him relief from his inner tension. At the farm we tried to work out other ways of keeping him relaxed and forestalling this condition. He had slept poorly for years and we would take long hikes of an evening to induce a natural sleep without his accustomed sedatives. Relief from emotional tension was afforded him in many ways: by talking himself out and unburdening his troubles; by teaching him how to get on with others; by keeping him from applying himself too intensively to a job and not burning himself up over trifles; by developing in him a sense of relative values. His tendency to over-do and over-react, at great emotional cost to him, was pointed out to him. He was told to take it easy, not to set his heart too much on a certain project, not to allow himself to get overtired. By the time he left the farm he was able to put in nine hours of sound sleep regularly every night, he had learned to plan his work within reasonable limits of his strength, to keep his objectives more flexible and within limits of fulfillment. Today he is active in civic affairs, successful in a new business venture, but he has learned the big lesson of when to call a halt. To his family's amusement, big, strapping fellow that he is, he lies down every evening for an hour before dinner and lets nothing come between him and this rest period. Incidentally, this is a simple, effective prescription for many patients. My parting advice to any man leaving the farm is never: "Be on your guard against

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## Skin Tests in Allergy\*

FRANCIS M. RACKEMANN, M.D., Boston, Mass.\*\*

Skin tests are the backbone of allergy, the dramatic part of the picture. They have given to allergy its popularity and sometimes the feeling that allergy can cure everything.

What do they mean? Primarily, they demonstrate that the patient's skin is specifically sensitive. One would like to think that the immediate reaction which occurs on the slightest contact of the skin with the offending substance has its counterpart in a similar reaction which takes place in the nose or in the bronchi, but as will be shown presently, the skin reaction does not always indicate that these other tissues are as sensitive. The discrepancy between skin tests and clinical sensitivity may be well marked. Textbook pictures like the baker with wheat asthma or the sportsman with horse asthma are typical, of course, but unfortunately, all cases are not like that. The difficulties are numerous.

There are several methods of making skin tests. The scratch test is the simplest and easiest. Here, a little of the extract in dry powdered form, moistened with a drop of salt solution on the arm, or a drop of extract already prepared is applied to the arm, and then a small superficial scratch is made through it. The intracutaneous method requires the injection of a certain quantity of material in known concentration between the layers of the skin. The technic is fussy. Finally, the solution or powder can be applied directly to the nose or to the eye. In each case, a positive result will occur within fifteen minutes as a pale swelling with surrounding erythema.

The extracts used must be non-irritating and in normal persons should give no response. Furthermore, their activity should be proved by demonstration that they react well in patients who are known to be clinically sensitive.

The choice of method is important and indeed represents one of the "tricks" in the study of allergy. If the patient is markedly sensitive, the intracutaneous method may be positively dangerous, and the scratch method should be used

first. In the case of hay fever pollen, extracts are less active than the crude dry pollen itself, and the latter sometimes provides a useful method of approach to patients formerly considered to be test-negative. In some cases, the intracutaneous method must be used if the specific reaction cannot be demonstrated by other means.

The skin test active principle is unknown. Chemical studies show that it is closely related to the protein fraction and that it has certain elements characteristic of a carbohydrate. Usually, it is precipitable by ammonium sulphate as well as by alcohol and it does not pass through the dialyzing bag. Evidently, it is bound to a molecule of large size. So far, however, its exact chemical nature is unknown, and so for the moment, all we can do is to treat our extracts with respect. They should be kept on ice and they should be made fresh from time to time. Since the degree of sensitiveness in some cases may be so great that certain extracts will react in high dilution, even up to one part in a million, the preparation of them demands very careful chemical cleanliness as well as bacteriological cleanliness. The extracts must be sterile; they must be specific; and they must be standardized.

The reading of skin tests is important. It is very fortunate that Dr. W. T. Longcope taught me to insist that all our observations in the clinic be recorded in diagrams to indicate exactly what was seen. If the interpretation into "two plus" or "four plus" reactions is ever desired, it can be made at any time. Now, when the patients are tested again after an interval of several and sometimes many years, it becomes possible to compare the different skin tests and with considerable accuracy.

The tests provide a measure of skin sensitiveness. Shall this measure be determined by the size of one wheal or by examining the responses to a series of dilutions of the original extract? Obviously, the latter is the accurate way, for in many patients tested in different years, the

\*Read before the Connecticut State Medical Society, New London, Conn., June 1, 1938.

\*\*Associate in Medicine, Harvard Medical School and Physician, Massachusetts General Hospital, Boston, Mass.

strong dilution has given wheals of identical size while the tests with higher dilutions have later disappeared entirely. Controls have spoiled many experiments and are always important. One test at a time is no good, for the reading must depend upon a comparison between one test which is positive and the other which is negative. In this way, one can avoid the difficulty which occurs when patients have an irritable skin which will react to almost everything applied to it even including salt solution.

Skin tests are sometimes positive in persons who are said to be normal. In 1935, Dr. Simon and I made routine tests on patients in the medical wards and made three observations:—

1. Certain of these patients had irritable skins and reacted to everything.

2. Certain of our extracts, like house dust and kapok, reacted in a considerable number of these normal persons. The extracts themselves were irritating, and since then, we have learned to interpret tests with these particular substances conservatively.

3. We found that in several instances, typical positive results occurred, and then in talking with these patients, we found that sure enough, in earlier life, they had suffered from real hay fever which later had disappeared by itself so far as the clinical symptoms were concerned but which left the skin test as a sort of remnant.

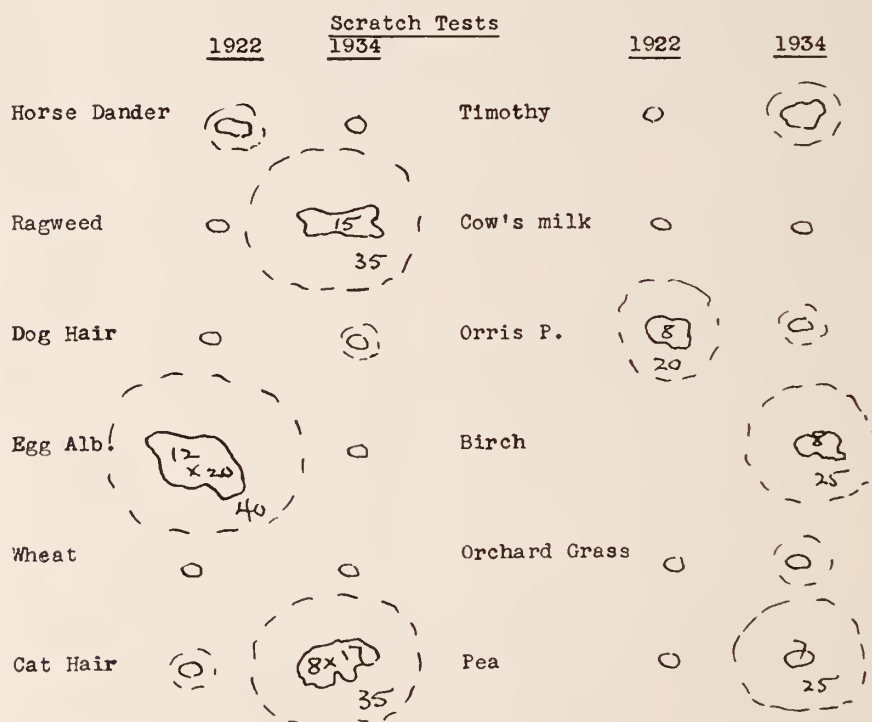
This shows quite clearly that skin tests may often represent past history rather than present illness. Interpretation is the crux of the problem.

# HARTE

## FIGURE I

Age 17 months - Eczema and Asthma - poisoned by egg.

Age 12 years - Asthma and Hay Fever only in summer.



The record of skin tests made 10 years apart in a small boy. Note the method of recording results observed within 15-20 minutes. Each reaction is characterized by an urticarial wheal with sharp borders of irregular outline. The figures inside show the diameter in millimeters. Around the wheal is a pink zone of erythema, measuring 20 to 40 millimeters as indicated. Note that the egg white reaction, which was so marked in 1922, has disappeared in 1934, and that the pollen tests which were negative at first, have become positive later. The nature of his sensitiveness has changed from foods to dusts.



We observe that in allergy in children, the early sensitiveness is directed towards foods, but in other patients who develop allergy in later life, the sensitiveness is directed toward dusts. Figure I illustrates a patient who has been followed from infancy and who shows the changes in skin tests which have occurred since then. At the age of 17 months, this boy had eczema and asthma dependent upon his sensitiveness to egg. Also, he reacted slightly to animals but these played little part. Now, at the age of 12 years, his egg test has disappeared, the cat reaction has increased markedly, and now he is showing slight reactions to the common pollens. The clinical picture has changed considerably.

When positive reactions occur, it is important to find out what they mean in the individual patient. There is only one good way of doing this and that is to take a history with greatest care. We talk glibly about a sensitiveness to house dust but does the patient have asthma or hay fever only in certain particular environments? Perhaps trouble occurs only in the country over the weekend or only during the summer at the shore, or on the other hand, perhaps it occurs more or less continuously even when he is at home engaged in routine work. But sometimes, the clue depends upon some little break in the continuity. Perhaps he went to New York on business, and while there, all asthma disappeared. Careful questioning may demonstrate that the asthma really is concerned with something wrong in the home environment, and under these circumstances, the house dust test becomes of real interest. On the whole, the diagnosis rests upon the history; the skin tests serving chiefly to confirm the possibilities brought out by a careful story. The history must explain why the asthma began and must also explain why it ended at a particular time. If there was a free period of 3-4 months, why did this occur, and why did another attack come at the end of this free interval? To be of practical value, the skin tests must be correlated with the history and confirmed by clinical experiment so that the whole study will make sense. Doubtful reactions to foods, for example, must be checked by eliminating the food and observing whether any improvement follows. Changes in pillows, mattresses, rooms, or even houses often give useful information, and transfer to the hospital ward may be best of all. Finally, one

should not hesitate to do the skin tests again on another day for reactions which were doubtful the first time may be either positive or negative on repetition, and one may find that this doubtful response depended merely upon the fact that the particular scratch was a little deeper or longer than its neighbors.

In connection with history taking, there are two important tricks. One is to record the time by the exact dates on which episodes occur. Dates alone will often suggest a reason for the changes observed. Second, one must account for all the time and if a free period occurred, the fact with the dates should be stated in black and white.

The tolerance of the allergic person for the substance to which he is sensitive, is determined not by skin tests alone. The tolerance may be measured by the degree of clinical sensitiveness. One man can ride horseback all afternoon with no trouble until that night, whereas another man would hardly dare to enter the stable. The size of skin tests, as said above, is the second measure; and thirdly, tolerance is measured by the response to subcutaneous doses as used in treatment. In most instances, these three measures go together. The patient who is very sensitive will have large skin tests and will be unable to take more than very small doses, but there are exceptions, and not infrequently one sees patients whose skin tests are very large, but who nevertheless, can take fair sized doses without difficulty. Even more important, however, is the other group whose skin tests are small and yet it may be that dreadful and violent general reactions will follow doses of moderate size.

What happens to skin tests? Do they tend to disappear or do they continue? Negative phases of skin tests have been described, but in my experience, are not observed often. On the whole, the skin tests once established change slowly, and skin tests repeated from year to year may often give results which are almost identical, not only in the size of wheal but in the strength of the dilution which responds. In this connection, a preliminary survey of 100 patients with hay fever tested three or four months before the beginning of the season in each of five years or more was made and it was found that skin tests disappeared entirely in 7%; became much smaller in 50%; remained unchanged 38%; and became even larger in 5%, and yet in each one

of these 100 patients, the hay fever was under control so that 57% of the patients described themselves as almost cured, and the remainder were distinctly better. Obviously, those unrelieved in the clinic did not return indefinitely for further tests. So far, the question of whether successful treatment always results in a diminution of skin tests is hard to answer. In many instances, the skin tests made at the end of the season are smaller than at the beginning, and sometimes they have disappeared entirely. On the other hand, there are many patients clinically relieved by treatment but whose skin tests at the end of the season are quite as large as at the beginning. More striking is a small group of patients whose skin tests are reduced by treatment but whose symptoms are unimproved. Here again is further evidence of the discrepancy between tests and symptoms.

In one experiment, the treatment doses of ragweed extract of patients with hay fever were given always in exactly the same spot in the arm with the idea that at least this particular spot could be desensitized, and sure enough, it was found that after four or five daily doses, the response had almost disappeared, but then we observed that if the strength of the dilution was increased, the reactivity returned again, and further, that if one single day went by without the regular dose, then sensitiveness returned. In other words, and in this case, the desensitization was a change which was only relative and only temporary.

### Summary

1. Skin tests are dramatic but do not always agree with the degree of clinical sensitiveness.
2. The technic of skin tests is always important and the reading may be difficult.
3. Interpretation is the crux of the problem. To make sense, the skin tests must be correlated with the history.
4. It is the history which gives the real clue to the diagnosis. "Tricks" in history taking are described.

5. Skin tests may represent past history rather than present illness.

6. Allergic tolerance is measured in three ways:— By the degree of clinical sensitiveness; by the size of skin tests; and by the response to subcutaneous doses. Discrepancies between these three are common.

7. The fate of skin tests in the treatment of hay fever is described.

263 Beacon Street

—☆☆—

### \$1,500,000 TO THE UNIVERSITY OF CHICAGO

The University of Chicago will receive \$1,500,000 from the Rockefeller Foundation for research in the biologic sciences, provided an additional sum of \$500,000 can be obtained from outside sources before June 30, 1941. During the next three years the foundation will provide \$180,000 at the rate of not more than \$60,000 a year for biologic research. This grant has been made so that the equivalent of the income of the capital sum of \$1,500,000 will be available to the university during the period allowed for raising the sum of \$1,500,000. Should the university secure the funds in a shorter period, the temporary annual grants will be cancelled. The foundation has provided grants for the support of basic laboratory research in fundamental biologic problems since 1929 and the new endowment will support this work on a larger scale.—*Ill. Med. Jour.*, Aug., 1938.

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It is true that medical practice has escaped servitude and has thrived under nearly all forms of rule and misrule, from Rome to Roosevelt. It is yet to be proved whether it can survive political pandemonium, purposeful pauperism and pusillanimous philanthropy. For, make no mistake, these constitute our present substitute for government.—*Westchester Med. Bull.*, Sept., 1938.

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# Analysis of Obstetrical Material at the Grace Hospital of New Haven\*

H. B. PERRINS, M.D., and M. L. BERLOWE, M.D.

New Haven, Conn.

Grace Hospital is one of three hospitals situated in a city of approximately one hundred and sixty-five thousand people. It is a general hospital and the majority of obstetrics is done by general practitioners. The number of deliveries performed at this institution is as great each year, and occasionally greater than at either of the other institutions, one of which is a teaching hospital. The intern and resident services are approved by the American Medical Association. There are two hundred and sixty-seven beds, forty of which are obstetrical.

The obstetrical department is situated on the fourth floor in the private pavilion and on the third floor in the ward building. In this latter place, because of limited facilities, it is necessary to maintain a gynecological ward on the same floor. The equipment in both buildings is adequate but not of the most modern design. A

standardized routine has been adopted and is required of all attendants. Operative obstetrics is strictly limited. Consultation by one of the staff obstetricians is always available and encouraged.

During the summer of 1936 there was a complete reorganization of all the departments of the hospital. This study was begun because of the reorganization. Whether the improvement in our statistics is the result of this, or whether it is coincidental, only time will tell. We know, however, that there has been a definite improvement in the type of obstetrics practiced.

There is a detailed study of our cases for the year 1937. For the years from 1933 through 1936 no such study was made. The tables are self-explanatory and further comment will be made if necessary.

TABLE I

FIVE YEAR RECORD

<i>Year</i>	<i>No. Cases</i>	<i>Maternal Deaths</i>	<i>%</i>	<i>Fetal Deaths*</i>	<i>%</i>
1933	723	2	.27	20	2.7
1934	752	5	.6	27	3.5
1935	814	1	.12	23	2.8
1936	790	2	.20	33	4.1
1937	879	0	0	21	2.3
Five Year Total	3958	10	.23	124	3.0

\*Fetal deaths figures are not corrected.

TABLE II

MATERNAL DEATHS

<i>Year</i>	<i>Diagnosis</i>	<i>Type of Delivery</i>	<i>Remarks</i>
1933	Placenta Accreta	Spont. Occiput	Retained Placenta with profuse Hemorrhage: rapid shock.
	Vaginal Bleeding and Post Partum Hemorrhage	6 mos. Preg. Version and Extraction.	Admitted with bleeding of 3 days duration, in mod. shock. Cervix was 7-8 cm. dilated. Ver. & Ext. rapidly done. Uterus packed. Patient had vaso-motor collapse.

\*From the Department of Obstetrics and Gynecology at Grace Hospital.

TABLE II (Continued)

## MATERNAL DEATHS

<i>Year</i>	<i>Diagnosis</i>	<i>Type of Delivery</i>		<i>Remarks</i>
1934	Dystocia	DeLee Section	Was in labor 72 hours.	Died of peritonitis on fifth day post-operative.
	(Definite Disproportion)			
	Acute Yellow Atrophy	Spont. Occiput	Admitted with jaundice.	
	Post Partum Hemorrhage	Spont. Occiput		
	Nephritic Toxemia	DeLee Section	B.P. 200/130	Convulsions.
	(Twins)			
	Cardiac Failure & Bronchiectasis	DeLee Section	Admitted in marked dyspnea. Terminal bronchiectasis. Was in Tbc. sanatorium where a phrenectomy was done in 1933. 8 mos. preg. Died 24 hours post-op.	
1935	Septicemia with Pelvic Thrombophlebitis, Multiple Emboli (Strept. Hemolyticus)	Spont. Occiput		
1936	Hypertensive Heart Dis.	Porro Section	Admitted with B.P. 220/120.	Died 8 day post op. (Autopsy).
	Bronchopneumonia and Terminal Hemorrhagic Nephritis			
	Lobar Pneumonia	Spont. Occiput	8 Mes fetus.	
	Syphilis			

TABLE III

## DETAILED STUDY FOR 1937

<i>No. Cases</i>	<i>Occiput</i>	<i>Presentation</i>	<i>Breech</i>	<i>Brow</i>	<i>Face</i>
	<i>Ant.</i>	<i>Post.</i>			
806	595	70	27	1	2
	82.6%	13.6%	3.4%	0.12%	0.24%

TABLE IV\*

## OPERATIVE OBSTETRICS 1937

	<i>No. Cases</i>	<i>%</i>
Forceps — low	125	15
mid	48	5.5
Version & Extract	8	0.9

\*Three hundred and ninety-five (49%) were primiparas. Average days of hospitalization was 10.5 days. There was an average of 19.5 different doctors presiding each month.

Twenty cases (2.4%) had a morbidity of two or more days.

TABLE V

## SECTIONS

<i>Year</i>	<i>No. Cases</i>	<i>No. Sections</i>	<i>% Sections</i>	<i>Deaths</i>	<i>% Deaths</i>
1933	723	44	6.0	0	0
1934	752	51	6.7	3	0.39
1935	814	69	8.4	0	0
1936	790	57	7.2	0	0
1937	879	73	8.3	0	0
Five Years	3958	294	7.3	3	1.02



**INDICATIONS FOR SECTIONS (Five Years)**

	<i>Cases</i>
Dystocia	127
Placenta Previa	10
Toxemias (Nephritic and Eclamptic)	47
Rheumatic Heart Disease	14
Previous Sections	62
Abd. Malignancy	1
Fibroids	5
Double Uterus	3
Previous Pelvic Repair	2
Fetal Distress	6
Ablatio Placenta	3
Adenoma of Thyroid with Tachycardia	1
Psychiatric	2
Not Listed	8

Our incidence of sections is very high. Yet we feel that our low maternal mortality is due to this. Many of our cases are sent in from outlying districts in very poor condition so we either do a Latzko or DeLee section when indicated. We do not permit a toxic patient to carry her pregnancy after forty-eight to seventy-two hours unless she shows a definite improvement to our medical regime. And we feel that extensive tests of labor in our borderline pelvic cases are more hazardous to our mothers and their babies than a section.

**REPORT OF THE HOSPITAL SURVEY FOR NEW YORK**

Volume III, Report of the Hospital Survey for New York has been off the press since early in the summer. It presents an analysis of the investments, costs, and income of the institutions and agencies concerned with organized care of the sick in the New York Metropolitan Area, and estimates of future capital investment requirements.

For the hospitals in the Metropolitan Area outside New York City the average endowment per bed for the 130 hospitals studied was \$419 on December 31, 1934, as compared with \$935 for the 208 hospitals in New York City. Based only on all beds in voluntary hospitals, the averages were \$879 for the 69 institutions of the outside area and \$2,179 for the 104 in New York City. The costs per patient, the total expenses and income, and the investment of hospitals outside the Metropolitan Area are contrasted with the same in the hospitals inside the area.

Estimates for the future are provided and a feeling of concern is expressed over the absence of any measures to assure that the funds required will be made available as needed, and that they will be put to economical and efficient use.

**ANNUAL REPORT OF THE ROCKEFELLER FOUNDATION FOR 1937**

The annual report of the Rockefeller Foundation for the past year has just reached the Journal office. The volume contains very complete reports of the different phases of work carried on by the Foundation, in medical sciences, in natural sciences, in social sciences and in the humanities, as well as the work of the International Health Division and the work in China. The Treasurer reported a balance in the Principle Fund as of December 31, 1937 of \$150,259,942.09.

**SQUIBB INSTITUTE FOR MEDICAL RESEARCH**

Organization of the Squibb Institute for Medical Research, in which a staff of scientists assembled from leading institutions of the United States and foreign countries will attack problems involved in the cure of disease and relief of pain, is announced by E. R. Squibb and Sons. The Institute will be housed in a new laboratory building just constructed at a cost of \$750,000 in New Brunswick, N. J., and described as "the finest of its type in the world."

Dedicated to pure science, the Institute, which will be in complete operation this Fall, is the first of its kind to be founded in the pharmaceutical industry. The aim, it was explained, is to create in the medical and biological fields an industry-supported research enterprise comparable to the Bell Telephone and General Electric laboratories in the sphere of physics.

Research activity, already under way, has been organized in four main divisions — experimental medicine, pharmacology, bacteriology and virus diseases, and organic chemistry. In addition, the Institute will operate a biochemical laboratory and a medicinal chemistry laboratory. The scientists will continue studies begun in the laboratories with which they were previously associated, and new lines of investigation will be opened up.

# Association of Connecticut Tumor Clinics

## Some Problems of the Diagnostic Curettage\*

MAURICE R. MOORE, M.D., Norwich, Conn.†

Dr. James Ewing is credited with the statement that when we understand the life history of a single body cell, we shall probably understand the cause and cure of tumors. I am not in a position to prove this statement, but it appears to be correct. I find reason for this assumption in an experiment that we all may try, merely, incise surgically some protected, heretofore undisturbed, part of one's body, and immediately the forces of healing begin. The capillaries bud, the fibroblasts and epithelial cells proliferate; soon the laceration is firmly held together and covered by the newly formed tissue. Then all the growth activities cease and once more normal existence is established. This demonstrates a force, probably within the cells, which produces the growth of this resting tissue just so long as it is required; and a force, probably outside the cells, which inhibits the growth when the purpose has been accomplished. Remove these same fibroblasts into a culture media where they are freed of body forces and their growth appears to be limited only by the amount of culture media. All this serves to attract one's attention to the phenomena of normal growth in which may be hidden the secrets of the autonomous neoplasm. Every pathologist is attracted to the study of the normal changes in the mucosa of the uterus. Part, at least, of this interest is born of necessity because there is no more frequent diagnostic problem presented to the clinical pathologist than to determine the cause of symptoms originating in the body of the uterus.

\*Melville C. Watson, M.D., prepared excellent diagrammatic sketches of the normal endometrium and the pathological histology that may arise from hormone disturbance, etc.

Fig. 1 shows the basal portion of three glands immediately after a major tissue loss at the time of normal menstruation.

Fig. 2 illustrates active growth period. The basal portions are unchanged; immediately above the germinal base is a layer of active growths indicated by mitotic division; the superficial layer consists of matured cells.

Fig. 3 is a diagrammatic sketch of premenstrual endometrium.

Fig. 4 is a diagrammatic illustration of the endometrium when it has been maintained under the continuous influence of Oestrin. Tissue growth is continuous; tissue loss is confined to superficial necrosis. Obviously these changes will be present in various degrees and occur when follicular development is arrested.

Fig. 5 shows the changes of Fig. 4 going in to polypus formation.

Fig. 6 shows the endometrium maintained in the pre-menstrual phase. The epithelial cells become exhausted, superficial necrosis occurs with inflammation and free bleeding. This is apt to occur late in the reproductive era and in women who have multiple pregnancies.

I wish to demonstrate a number of cases some of which illustrate hormone hyperplasia and others, neoplastic disease. The first is that of a forty-one year old white female, who had been bleeding for eight months at seven to ten day intervals. She was hospitalized and a diagnostic curettage done. The laboratory reported glandular hyperplasia. The physician diagnosed it a "fibroid uterus" and the patient was discharged improved. She returned to the hospital ten days later with a history of renewed bleeding. A hysterectomy was done and an old cornual

\*Read before the Ninth Meeting of the Association at Norwich, April 14, 1938.

†Pathologist at Backus Hospital, Norwich.

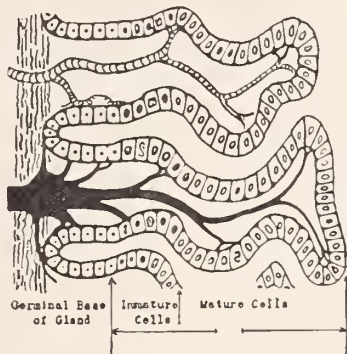




POST-MENSTRUAL ENDOMETRIUM

Note:- 1. Coiled, Retracted Artery.  
2. Collapsed Venous Sinus.  
3. Germinal Base of Gland.

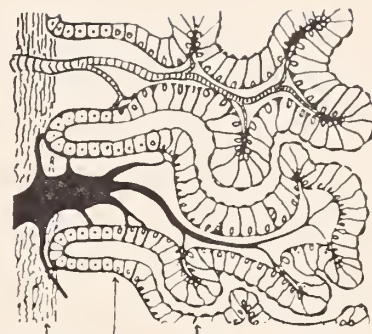
(1)



12 DAYS

OESTRIN EFFECT

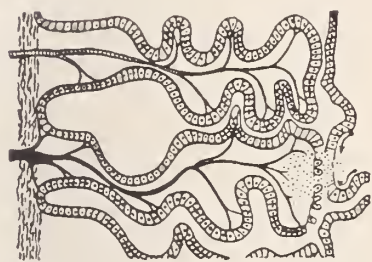
(2)



Germ. Cells, No. Immature, Partial Mature Cells Complete: Progesterin Effect

PREMENSTRUAL ENDOMETRIUM

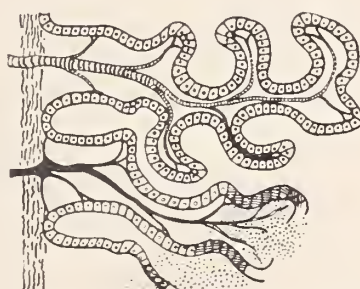
(3)

OESTRIN STIMULATION CONTINUOUS  
THICK ENDOMETRIUM FILLS  
LUMEN OF UTERUS.

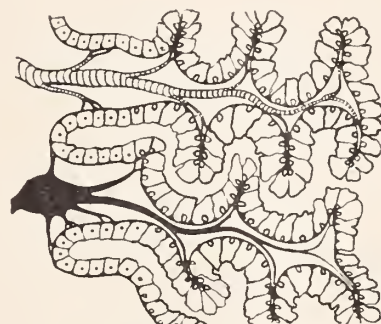
Note:- Superficial necrosis due to disturbance in vascular supply, also attempt of tissues to heal over necrotic area.

Cystic glands are a sign of physiological aging.

(4)

POLYPOID ENDOMETRIUM MAIN-  
TENANCE OF TISSUES DEPENDS  
UPON POSITION OF ARTERIES.

(5)

PROGESTIN STIMULATION  
PROLONGED

(6)

pregnancy was found present associated with marked hyperplasia of the endometrium and inflammatory change. This case serves to demonstrate the possibility of the curet missing the diagnostic part of the uterus even though the lesion is not small.

The second case of hormone hyperplasia is that of a thirty-nine year old white female, mother of two children. She complained of menstruations lasting two to three weeks over a period of four to five months, and this was associated with much lower abdominal pain. A curettage was done, and a diagnosis of glandular hyperplasia with large cells having clear cytoplasm and basalar nuclei predominating. This patient was then submitted to a hysterectomy. An old corpus luteum was found present and apparently active in one ovary. The uterus showed marked uniform thickening of the endometrium, and there was no other pathology

observed. This case serves to demonstrate, in one's opinion, the association of hyperplasia and menorrhagia, probably of ovarian disfunction origin.

The most common hyperplasia which it has been my experience to meet, is that associated with fibromyomata. This is typically the type seen from hyperaction of the follicular hormone. There is one exception to hyperplasia with fibromyoma, and that is when the tumor is situated in the submucosa; here it results in a pressure atrophy of the entire endometrium which contacts the tumor. The same type of pressure atrophy is found present in the adenofibroma, a tumor taking its origin in the endometrium and quite rare in my personal experience — only two cases of this type of tumor have been presented to me for diagnosis.

Case #3 is a white female, fifty-seven years of age, mother of one child, who began bleeding

and continued with a bloody discharge for three months. She then presented herself for diagnosis, a curettage was done and the presence of adenocarcinoma, grade II, demonstrated. A series of X-ray and radium treatments were given by one of our good roentgenologists. She returned and the uterus was removed. Microscopic examination of this uterus showed large numbers of malignant cells which had all the histological characteristics of live tissue. One chooses to consider the facts that this patient later developed both rectovaginal and vesicovaginal fistulae, indicative of the fact that she had received all of the X-ray and radium which should be administered, and yet live cancer cells were clearly demonstrated. One would believe this to show the necessity of associating surgery and X-ray under the proper circumstances, namely, the grade of the malignancy and the stage of the growth.

Case #4 is that of a fifty-four year old white female, mother of fourteen children. In 1935, a cyst was removed from the left ovary. In the wall of this cyst, one found nodules of malignant tissue, approximately 2-3 cm. in diameter. She returned in September, 1937, complaining of persistent vaginal discharge. A curetting was done and the diagnosis of adenocarcinoma, grade II, made. This patient received a series of X-ray treatments, and the uterus with appendages were removed later. At this time the right ovary was found enlarged so as to measure 12 x 10 cm. and was clearly an adenocarcinoma both grossly and microscopically. The uterus showed the malignant process present in the canal of the cervix. It was entirely necrotic but was obstructing the lumen of the cervix so as to allow accumulation of purulent material in the body of the uterus. This type of obstruction may so cause accumulations and dilatation of the uterus as to lead the physician to consider the presence of a fibromyoma and begin a subtotal hysterectomy. Such a procedure carries the surgeon's knife directly into the malignant process and one does not need to say that this is a most regrettable situation. A diagnostic curettage is the only means of preventing such an error.

I now desire to draw your attention to a specimen that came to me, and I do not do this out of a spirit of levity or spectacularity, but merely because it was given to me as a diagnostic problem. It was the case of a young woman one

month before delivery. A mass of material was found in the bed pan. This material was soft, reddish-brown in color; it was put in formaldehyde and sent to the laboratory for diagnosis. Curiously, some portions of it floated and on microscopic examination, long cotton-like fibers were seen. The diagnosis of "kapok" was made, the patient delivered normally later. This serves to illustrate the type of unexpected and innocent thing that may present itself.

"All of these cases were accompanied with microscopic slides and many of them with the gross specimen. The latter were in formaldehyde and gelatin in petri-dishes."

I hope that these have served to illustrate the type of experience which may present itself at any time to the clinical pathologist and in turn the clinician.

#### DISCUSSION

DR. EDWARD OTTENHEIMER, (Willimantic): I wish to compliment Dr. Moore on the able manner in which he has presented this subject to us, and has shown us how much valuable information we can get from diagnostic curettage. It has been interesting to me because it brings up the whole question of biopsies in general. I believe that there is need for a good book devoted exclusively to the subject of biopsies.

It seems to me there is a great deal of mis-information on the subject, and confusion as to whether or not in the first place to do a biopsy, and in the second place if a biopsy is decided upon, what is the best method to employ. This is due to our increasing respect for the agility with which malignant cells can metastasize in the presence of open lymph and blood channels.

It is my opinion that diagnostic curettage is one of our clumsiest methods of doing a biopsy, since we blindly scrape away at the uterine cavity. How much harm we do is probably difficult to say. All we can say is that the mortality of malignancies of the fundus that have been curetted, (if we except chorio-epithelioma), compares very favorably with the mortality of malignancies in other parts of the body that have not been subjected to the trauma of biopsy. This, of course, is a crude scientific comparison.

It seems to me that diagnostic curettage should be done extremely carefully and gently. Intravenous sodium pentathol is an ideal anesthesia for it. A fine tenaculum should be used and placed so that the grasp is not in the cervical canal. Only a small sharp diagnostic curet should be employed, and only material sufficient for the pathologist to make a diagnosis, should be removed.

It is not necessary to do a debridement of the uterine cavity for a diagnostic curettage. The uterine cavity should not be irrigated under gravity pressure with any solution if malignancy is suspected, but it is well to irrigate the vagina at the conclusion of the curettage. If attention is paid to these details, the dangers of diagnostic curettage can be minimized. Of course, the most important thing is not so much how we do it, as when we do it.



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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

**ILLUSTRATIONS** — Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

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## • Editorials •

### LET'S GO VISITING

October in Connecticut is lovely, clear bright skies, scarlet hillsides, russet and purple in the meadows and some days summer lingers with a last sweet reluctance. It is the pleasant interval between the indolence of the vacation season and the pressing activity of winter.

Twice a week throughout the month the county medical associations hold their semi-annual meetings and how could an afternoon be spent better now and then than visiting around? These fall meetings are less formal than the annual meetings in the spring, there is little of routine business to be transacted. Generally there is a golf course nearby, and some of the meetings are held in our fine State institutions, giving an opportunity to inspect them and become more familiar with the splendid work they are doing. The programs are always enlightening and then there is the good fellowship around the dinner table. Little Tolland County customarily meets in an ancient inn in Somers and anyone who has not been there has missed a unique experience. The schedule of the dates and places of the meetings is published elsewhere in this issue. Let's go visiting.



### CONNECTICUT AWAKE

"Socialism is merely a new application of Economy, which must go on until Competition puts an end to further Economies, or the whole world becomes one Socialistic Society and rots out. One need not love Socialism in order to point out the logical necessity for Society to march that way; and the wisdom of doing it intelligently if it is to do it at all."

So wrote Henry Adams to his brother Brooks from Hungary in 1898. It needs no skilfull amplification of the imagination to realize that our present government at Washington loves Socialism, disguised under whatever group of letters from the alphabet one may choose. The writer quoted above points out the need for Society, the citizenry of our Country, to fall in line with Federal plans, but, mark you, it must

be done with intelligence. At last the physicians of Connecticut, we believe, are thoroughly aroused to action.

A National Health Program containing five recommendations has been formulated by the Federal Government and provided the occasion for a special meeting of the House of Delegates of the American Medical Association. The Council of our State Society met with our two delegates to the American Medical Association and discussed each of these five recommendations. The Council was of the opinion that the acceptance of the National Health Program as a whole, or in part, should be the privilege of the individual states, and that the control and administration of any part of the program so accepted should remain with the State.

Recommendation No. 1 in the proposed Program dealing with the extension and expansion of Public Health and Maternal and Child Health Services was approved by the Council, with the provision that such extension and expansion should be done with the full cooperation and guidance of the various State Medical Societies.

Recommendation No. 2 providing for general expansion of hospital facilities by Federal subsidy was approved by the Council with the specific reservation that existing hospital facilities should be fully employed and paid for on a subsistence basis for services rendered before the construction of additional facilities was undertaken, and then only after consultation with the State Medical Societies, State Hospital Associations, and other interested agencies, in order that a clear understanding of the needs might be had.

Recommendation No. 3 entitled "Medical Care for the Medically Needy" was approved by the Council as it stands, adding that the development of the programs for carrying out should be made with the cooperation of State Medical Societies and other interested agencies.

Recommendation No. 4 calling for a general program of Medical Care was considerably revised by the Council and approved in the revised form as follows:—

"We agree that the burden of sickness costs can be materially reduced and equalized for

SELF-SUPPORTING PEOPLE, through appropriate devices to distribute the costs among groups of people and over periods of time. We favor full experimentation with projects designed to apportion costs and timing of payments ON A VOLUNTARY BASIS, so as to reduce the burden of medical costs, and to remove the economic barriers which now militate against the receipt of adequate care. We believe the role of the Federal Government in this connection should be limited to the giving of financial and technical aid to the States in the development of sound procedures of their own choice."

Recommendation No. 5, which deals with the subject of indemnity for loss of wages during sickness, was approved by the Council, with the addition of the specific provision that the determination of the compensable illness is not to be determined by the attending physician, but by a medical representative of the agency paying indemnity for loss of wages, or a neutral referee.

To quote columnist Westbrook Pegler, "The problem of medical and surgical treatment for the masses is cluttered with undeserved pity for people who have convinced themselves that they can't pay the doctor for easing their pains or saving their lives, but could do so if they tried." However, Mr. Roosevelt and his advisors are to all appearances attempting to make an issue of this same problem of medical and surgical treatment for the masses and, therefore, each and every physician in Connecticut, at least, must know whereof he speaks.

To become better informed as to the exact need for medical services in our nation, to know more of the underlying facts of this same problem of medical care, the American Medical Association has asked each State Society to conduct a study, following an outline provided for the purpose. Many states have already cooperated in supplying the data. Our Society has this matter under consideration at the present time.

Group hospital service of some form is coming to Connecticut. 50,000 residents of the State are already enrolled in the hospital service plans now in existence in this State. Only last month the Council approved the newest of these plans now in operation in Danbury. Through



the efforts of some of the members of our Society and the Connecticut Hospital Association we now have a committee of twenty-three called by Governor Cross to provide a state-wide plan for hospital care insurance. This committee represents prominent men from many walks in life, men who by their experience and business and professional standing should supply the necessary energy in this project. Four sub-committees have been created as follows: a Law Committee; a Committee on Professional Relationships; a Committee on Plans; and a Committee on Social Aspects.

Group hospital service plans operate in the interest of the public and the public is demanding them. Connecticut would seem to be small and compact enough to maintain a single plan for the entire state. Any such plan must be non-profit bearing to be successful and the experience of other states has shown that it is best administered under the supervision of the insurance commissioner. It does not mean that the State will have any part in the administration of such a plan but it does mean that under the supervision of the insurance commissioner any plan must be sound and free from the dangers which may arise when an attempt is made to exploit the public.

For over a year Westchester County, New York, has been ardently advocating sickness insurance whereby provision is made for the payment of physicians' services. The Cleveland Academy of Medicine is proposing to put such insurance into operation. Our own Council has a similar plan under consideration. We shall endeavor in these columns to keep our readers informed on these new developments so that, once awakened, we as a Society may act with intelligence.

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#### TRIBUTE TO DR. EDGAR A. HINES

The faithful and efficient Secretary-Editor of the South Carolina Medical Association is to be honored by having an issue of the Journal of that Association dedicated to him. This issue will contain an account of the life of Dr. Edgar

A. Hines, whose story is an important part of the story of organized medicine in South Carolina and an inspiration to others who may enter into such fields. We offer our congratulations to this modest Southern gentleman and rejoice that his confreres have seen fit to thus honor him during his active life.

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#### THE "INDIANA PLAN"

The "Indiana Plan" of preventive medicine was presented to the American Medical Association at San Francisco with the suggestion that it be expanded into a national program. The proposal was approved in principle by the House of Delegates.

Inaugurated January 1, 1938, the Indiana State Medical Association's program, described as "an idealistic effort to safeguard the health of all individuals", already has attracted the attention of national authorities on health and medical problems.

With the Journal of the state association as a central forum for an educational program conceived to prevent illness, county medical societies have concentrated each month this year on a specific disease or health problem of paramount importance. Coordinating their work with the program of the Indiana State Board of Health, the various societies have furthered their educational work through luncheon clubs, parent-teacher associations, and other lay civic organizations.

The Topics of the Month follow:—

January — Formulation of Plan.

February — Syphilis.

March — Pneumonia.

April — Diphtheria.

May — Maternal and Child Health.

June — Crippled Children.

July — Highway Accidents.

August — Occupational Diseases.

September — Annual Physical Examinations and Heart Disease.

October — Conservation of Eyesight.

November — Tuberculosis.

December — Smallpox.

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# From the Secretary's Office

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## SEMI-ANNUAL MEETINGS COUNTY ASSOCIATIONS

### Litchfield County

Tuesday, October 4

Bantam Lake

Guests of Dr. Hanchett — program not completed

### Fairfield County

Wednesday, October 5

Hotel Green, Danbury

6:00 P.M.

"Mechanics of Gastro-Intestinal Tract in Health and Disease," Alfred Z. Gilman, M.D., New Haven

### New London County

Thursday, October 6

Uncas-on-Thames, Norwich

6:30 P.M.

Program not completed

### Middlesex County

Thursday, October 13

Edgewood Country Club, Cromwell

Program not completed

### Tolland County

Tuesday, October 18

Old Homestead Inn, Somers

6:30 dinner

"Treatment of Common Diseases of the Ear, Nose and Throat," Morton Arnold, Willimantic

### Windham County

Thursday, October 20

Nathan Hale Hotel, Willimantic

12:30 P.M.

Program not completed

### Hartford County

Tuesday, October 25

Chippabee Country Club, Bristol

6:00 P.M.

"Relationship of the Autonomic Nervous System to Pharmacology," Abraham Myerson, M.D., Boston

### New Haven County

Thursday, October 27

Waterbury Country Club, Waterbury

4:00 P.M.

John A. Hartwell, M.D., New York City, "Trends in Medical Practice"

7:00 P.M. Dinner

Mr. Joseph Hergesheimer

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## COMMITTEE ON PREPAID HOSPITALIZATION

Following the conference on prepaid hospitalization called by Governor Cross on August 9, the Governor appointed a committee from the conference group to study the subject of prepaid hospitalization and a plan to make this service available throughout the State.

The committee appointed was as follows: Governor Cross, ex-officio; Wilmar M. Allen, M.D., Hartford; Creighton Barker, M.D., New Haven; Hon. John C. Blackall Hartford; Mr. John Cavanaugh, Norwalk; Reverend E. P. Cryne, Waterbury; Mr. N. LeRoy Jackson, Danbury; Mr. A. N. Jorgensen, Storrs; Mr. Harry C. Knight, New Haven; H. Bertram Lambert, M.D., Bridgeport; Hon. Pierce J. Laramie, Willimantic; Most Reverend Maurice F. McAuliffe, Hartford; Mr. James L. McConaughy, Middletown; Mr. Morgan Mooney, Hartford; Hon. Edward Moran, Norwich; Hon. Francis A. Pallotti, Hartford; Karl T. Phillips, M.D., Putnam; Mr. Matthew A. Reynolds, New Haven; Daniel Sullivan, M.D., New London; Mr. Edward L. Tucker, Shelton; W. Bradford Walker, M.D., Cornwall; Mr. Leland M. Wilson, Hartford; Mr. Isidore Wise, Hartford.

Dr. Wilmar M. Allen, Superintendent of the Hartford Hospital, was elected Chairman of the Committee and Mr. A. N. Jorgensen, President of the Connecticut State College at Storrs, the Secretary. In order that the work of the Committee might be expedited four sub-committees were appointed, one, a Law Committee under the chairmanship of Mr. Blackall, Insurance



Commissioner, to study and draft appropriate legislation; two, a Committee on Social Aspects of the plan under the chairmanship of the Reverend E. P. Cryne of Waterbury; three, a Committee on Plans under the chairmanship of Matthew A. Reynolds, Esq., member of the Board of Directors of the Plan for Hospital Service of New Haven; four, a Committee on Professional Relationships under the chairmanship of Dr. Creighton Barker which will study and make recommendations in regard to the relationship of the medical profession and hospitals to the operation of prepaid hospitalization plans.

Your Secretary wishes to take this opportunity to invite members of the State Medical Society to submit to him any suggestions or ideas that they may have that will contribute to the success of a State-wide prepaid hospitalization plan.

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#### DANBURY HOSPITAL SERVICE PLAN APPROVED

The Council of the State Medical Society has approved the subscribers contract as issued by the newly organized Hospital Service Company of Danbury, Inc.

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#### HOW OUR SOCIETY STANDS ON MEDICAL AID THROUGH INSURANCE (Editorial - Bridgeport Post)

Dr. Creighton Barker, executive secretary of the Connecticut State Medical Society before leaving for Chicago to attend the meeting of the House of Delegates of the American Medical Association which has been called to act upon the national health program, outlined the basis of the position taken by the Connecticut State Medical Society on group medicine.

We note with interest a recommendation which as Dr. Barker says "outlines a broad program for general medical care for self-supporting people," which has been approved by representatives of the Connecticut State Medical Society. It is phrased in the following words:

"We agree that the burden of sickness costs can be materially reduced and equalized for self-supporting people, through appropriate devices to distribute the costs among groups of people and over periods of time. We favor full experimentation with projects designed to apportion costs and timing of payments on a voluntary basis, so as to reduce the burden of medical costs and to remove the economic barriers which now

militate against the receipt of adequate care. We believe the role of the federal government in this connection should be limited to the giving of financial and technical aid to the state in the development of sound procedures of their choice."

This is very interesting as indicating that Connecticut doctors who perhaps have slammed the doors of their organizations against any proposal smacking of socialized medicine, are receptive to a plan whereby medical costs may be met on some sort of an insurable basis through co-operative action supervised by the state.

We have already seen that a committee of the state of Connecticut is now considering a general hospitalization plan on this basis. It will be some form of adaptation, with state supervision, of the plan now already in effect in several cities, whereby the payment of three cents a day assures hospital service when needed. It does not cover the medical bill.

That this same plan or some modification of it might be adopted to encourage persons to provide against the future need of medical care on some easy basis and through cooperative action, seems reasonable. At any rate the Connecticut Medical Society far from being opposed to any such plan is in favor of it. It believes the federal government should help to formulate such a plan by giving technical assistance, but should not otherwise participate in it.

If self-help through insurance is any form of Socialism then the American people are the most Socialistic in the world for they certainly are the best insured in the world. To carry this successful principle a step further and to apply it to medical costs is no radical innovation. It looks merely like common sense.

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#### PROMINENT AUTHOR TO SPEAK AT COUNTY MEETING

Mr. Joseph Hergesheimer, noted novelist and essayist, will be the guest after-dinner speaker at the New Haven County Medical Association on October 27. Mr. Hergesheimer's subject has not been announced but remarks on any topic by this brilliantly articulate layman will be of interest to members of the Association. The author of "Java Head," "Cytherea," "Quiet City," "Swords and Roses," "Black Pennies," and "Foolscap Rose,"— to list but a few of his published works, has established himself as an expert observer and recorder of human affairs.

# Meeting of the House of Delegates American Medical Association

Chicago, Illinois, September 16-17, 1938

(By Special Correspondent to the Journal of The Connecticut State Medical Society)

A special meeting of the House of Delegates of the American Medical Association was held in Chicago on September 16-17th, the chief purpose being the consideration of the National Health Program as recently proposed in Washington. 175 delegates attended. The various State Society Secretaries and Journal Editors were extended an invitation to be present at this session.

## **Indictment of the American Medical Association**

Chairman Booth of the Board of Trustees called attention to the fact that as yet the American Medical Association has received no word from the Department of Justice relative to any indictment of the Association.

## **No Financial Interest in Federal Health Program**

It was emphasized at this session of the House of Delegates that medicine has no financial interest in the problem of a national health program. It is considered the Government's business to finance such a program but if the Government demands it, the medical profession should be willing to assist with the program.

## **Inaccurate Figures on Medical Care**

It is frequently pointed out that an artificial and spurious picture of the present conditions of medical care is being drawn by agencies of the Government in order to prove their point. No proof of these inaccuracies has been furnished, only bold denial.

## **Resolution to Pay Physicians for Care of Indigent**

The delegates from New Jersey presented a resolution to require the Federal Government to pay physicians for all care of the indigent in and out of hospitals. A similar resolution was presented by the delegates from Michigan.

## **Resolution to Request President Roosevelt to Appoint Committee**

The delegates from Mississippi presented a

resolution to the effect that the House of Delegates request the President of the United States to appoint a Committee from the Federal Government to confer with a Committee from the American Medical Association to draft a plan for medical care and that until this joint Committee shall have an opportunity to make its proposals back to the House of Delegates all action be postponed.

## **Negro Physicians Support American Medical Association**

The Negro physicians who are organized throughout this country promised to support the American Medical Association.

## **Opposes Compulsory Sickness Insurance**

The House of Delegates voted unanimously as opposed to the Government proposal for compulsory sickness insurance believing that such a plan would lend itself to political control and manipulation.

## **Hospital Service Insurance and Voluntary Cash Indemnity Insurance**

Hospital service insurance was favored and it was considered by the House of Delegates that it is practical to develop voluntary cash indemnity insurance plans to cover, in whole or in part, the costs of emergency or prolonged illness.

We quote from the report as adopted:

"We approve the principle of hospital service insurance, which is being widely adopted throughout the country . . . . We particularly recommend it as a community project. Experience in the operation of hospital service insurance or group hospitalizations plans has demonstrated that these plans should confine themselves to provision of hospital facilities and should not include any type of medical care.

"We recognize that health needs and means to supply such needs vary throughout the United States. Health needs usually depend on local conditions and therefore are primarily local



problems. We therefore encourage county or district medical societies, with the approval of their state medical societies, to develop appropriate means to meet their local requirements.

"In addition to insurance for hospitalization, we believe it is practicable to develop cash indemnity insurance plans to cover the costs of emergency or prolonged illness. Agencies set up to provide such insurance should comply with state statutes and regulations to insure their soundness and financial responsibility, and should have approval of county and state medical societies.

"We are not willing to foster any system of compulsory health insurance. We are convinced that it is a complicated bureaucratic system which has no place in a democratic state. It would undoubtedly set up a far reaching tax system, with great increase in the cost of government. That it would lend itself to political control and manipulation, there is no doubt."

#### **Public Health Service and Hospital Facilities**

The House of Delegates favored the extension of the public health service. It went on record as believing that there is a greater need for the use of the existing hospital facilities than for the construction of more hospitals.

#### **Medical Care for the Indigent**

Concerning appropriation of funds for the indigent the delegates expressed the opinion that medical care of this group should be organized and administered by the local government itself.

#### **A Federal Department of Health**

The creation of a Federal Department of Health was favored. This department should have a physician as Secretary who should be a member of the President's Cabinet.

#### **Disability Compensation**

A disability compensation program for industry was favored, to be provided by the expansion of the present workmen's compensation legislation.

#### **Resolution to Advertise Services**

Dr. Charles A. Dukes of Oakland, California,

presented a resolution urging that district groups of physicians be allowed to advertise their service and its cost. No advertising by individual physicians would be allowed in this plan, only by state and local medical societies on an impersonal basis. Advertising would concern the low cost group medical plans and would be directed to the attention of the indigent.

This resolution was approved by the Committee on miscellaneous business but barred from further consideration by a ruling of the Judicial Council that its subject matter did not fall within the call of the meeting.

The following physicians were appointed as a committee to consult with Federal authorities on the National Health Program:—

Irvin Abell, Louisville, Kentucky, President of the American Medical Association.

Edward H. Carey, Dallas, Texas.

Walter E. Vest, Huntington, West Virginia.

Walter Donaldson, Pittsburgh, Pennsylvania.

Fred Rankin, Lexington, Kentucky.

Frederick Sondern, New York City.

Henry A. Luce, Detroit, Michigan.

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"The Roche (National Health) Conference was a bold stroke at violent change. Whatever its other effects may prove to be, it has served the purpose of defining sharply three great needs presently facing our profession. First, it defines a need of which our State Society took notice a year ago; the need for a comprehensive and unbiased study of the adequacy and the availability of proper sickness care under our present system. Second, it defines a need for cool-headed cooperation between the informed heads of Medicine and the interested heads of Government. And finally, lest both the art and science of Modern Medicine be scattered to the four winds, it defines a crying need for much more singleness of thought and purpose among the physicians of America."—*James C. Sargent, Pres. Wisconsin Med. Soc., Wis Med. Jour., Aug., 1938.*

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# 146th Annual Meeting

## Proceedings - House of Delegates

(Continued from Volume II, No. 9)

### WEDNESDAY AFTERNOON SESSION

May 25th, 1938

The session convened at 2:15 o'clock in the building of the New Haven Medical Association.

The first order of business was the nomination of officers for the year 1938-1939.

The Council then recommended that the dues in the amount of \$8.00 per member be assessed. After some discussion the House of Delegates voted to accept this recommendation.

An invitation from the New Haven County Medical Association to hold the 1939 Annual Meeting of the Society in New Haven was then accepted.

A recommendation from the Council was then considered providing for an appropriately drawn petition from the House of Delegates to be presented to the General Assembly of the State of Connecticut at its session in 1939 requesting that Section 3 of the Society's Charter as approved by Special Act 427, 1931, be amended so that the President-Elect will be designated as a member of the House of Delegates. Such an amendment to the Charter is necessary in order that the President-Elect may be a voting member of the House of Delegates. This recommendation was adopted.

A recommendation from the Council was considered to the effect that the Council be directed to appoint a Committee from members of the Society to study the need and requirements for revision of the Medical Practice Act of the State of Connecticut and to proceed with the presentation of a bill to the forthcoming General Assembly if deemed advisable. This recommendation was made to clear up a dilemma in which the State Examining Board found itself under the recently passed statutes for the reorganization of state officers. The recommendation was adopted with an amendment that the report of this Committee be submitted to the Council for approval before the bill is submitted to the General Assembly.

A recommendation emanating from the Committee on Public Health was presented by the Council calling for the submitting of a memorandum to the Public Health Council of the State of Connecticut recommending that the Sanitary Code of the State be amended to require a blood pressure determination, urine examination and an accepted serological diagnostic test for syphilis for every expectant mother under the care of a physician. This recommendation was adopted but was reconsidered at the adjourned meeting of the House of Delegates on June 1.

The Council then recommended that the Committee on Narcotic Drug Addiction of the Society be directed to prepare and present to the forthcoming General Assembly of the State of Connecticut, a bill designed to restrict the sale of barbiturates and other hypnotic drugs to the pres-

criptions of licensed physicians. This recommendation was further explained by Dr. Arthur B. Dayton, Chairman of the Committee on Narcotic Drug Addiction, and was then adopted.

The Council recommended that Chapter 8 of the By-laws of the Society be amended by the deletion of the line, "A Committee on Scientific Work" and all of Section 2, and to substitute therefor by the addition to Chapter 8, Section 1, A Program Committee, and to add a new Section 2 to that chapter as follows:

The Program Committee shall consist of three members which shall be nominated by the Council and elected by the House of Delegates. At the annual meeting of the House of Delegates in 1938 the Council shall nominate one member of the Society to serve as a member of the Program Committee for three years, one member to serve as a member of the Committee for two years, and one member to serve as a member of the Committee for one year. Annually thereafter the Council shall nominate to the House of Delegates one member of the Society to serve as a member of the Program Committee for three years. The Council shall designate the chairman of the Committee. The duties of the Program Committee shall be to arrange the scientific program for the meetings of the Society and it shall prepare such program for the annual Meeting and submit it to the Executive Secretary of the Society for publication not less than two months preceding the date of the meeting. This recommendation was adopted.

A recommendation from the Council was then presented to the effect that Chapter 8, Section 1 of the By-laws of the Society be amended by the addition of a Committee on Public Relations and to further amend Chapter 8 by the addition of a new Section 7, the latter to read as follows:

"At the Annual Meeting in 1938 and annually thereafter, the Council shall nominate to the House of Delegates one member of each component county association to serve for the period of one year on the Society's Committee on Public Relations. The chairman of this Committee shall be designated annually by the Council. The duties of this Committee shall be to inquire into and pass upon such phases of public information as deal with the care of the sick and the practice of medicine. If the Committee so desires, its deliberations and conclusions may be reviewed and passed upon by the Council of the Society, but such approval shall not be mandatory." This recommendation was adopted.

The Council recommended to the House of Delegates that Chapter 4, Section 3 of the By-laws of the Society be amended by the addition of 'by the President or the Council', so that the Section will read:



"Section 3. Special meetings of either the Society or the House of Delegates may be called by the President or the Council and shall be called by the President on petition of 10 members of the House of Delegates or 50 members of the Society." This recommendation was adopted.

The Council recommended that Chapter 7, Section 1 of the By-Laws of the Society be amended by the addition of the President-elect so that he becomes a voting member of the Council. This recommendation was accepted with an amendment to include also the Legislative Secretary and the Secretary on Scientific Work (Editor of Journal).

The Council recommended that Chapter 11, Section 10 of the By-laws of the Society be amended by the substitution of a new section as follows:

"Section 10. The County dues of the Society shall be due and payable on January 1 of each year and the fiscal year of the Society shall terminate on December 31 of each year.

"The Secretaries of the component county associations shall be charged with the collection from the members of their associations, the dues assessed by this Society. Bills for such dues shall be rendered to all members immediately following the first of January of each year, and the Secretaries of the component county associations shall forward to the Treasurer of this Society on or before the 10th of each month, all monies collected by them and due the Treasurer of the Society." This recommendation was adopted.

Secretary Barker reported a communication from the Surgeon-General's office of the Army asking the Society to send a memorial to the President of the United States, to our Congressmen, to our Senators, urging that they support a bill now before Congress known as Senate Bill 3919 and House Resolution 10455, asking that a new building be provided for the Surgeon-General's Library. A motion to this effect was passed.

Pursuant to a resolution presented at the morning session of the House of Delegates to the effect that the funds of the Clinical Congress be added to the assets of the State Society subject to audit identical with other funds of the Society as suggested by the Treasurer, Dr. S. Bayne-Jones, Chairman of the Committee on the Clinical Congress, moved the adoption of this recommendation. It was duly seconded and passed.

The recommendations made in the report of Dr. J. I. Linde, Chairman of the Committee on Public Health, and presented at the morning session of the House of Delegates (See Vol. II, No. 9, Page 459) were then adopted.

Dr. I. S. Geeter of New Britain then discussed the status of the Society in regard to group hospitalization or pre-payment plan. Discussion brought out the fact that the stand taken by the Council at the Annual Meeting in Bridgeport in 1937 was to be maintained, viz., that the Society approved only hospital service contracts which excluded medical services of physicians other than those customarily rendered by a resident house staff. Dr. Geeter requested that the Society take a more active part in establishing an approved state-wide plan. It was brought out in the discussion that such a uniform plan for the entire state apparently at this time could not be formulated acceptable to all concerned.

Dr. J. R. Miller, delegate to the Medical Society of New Jersey made a report as follows:

Mr. President, I don't want to let this occasion go by without giving just a brief report of a trip to New Jersey, and making a few comments on the New Jersey society.

Dr. Stringfield and I spent three days down there, were very nicely entertained, and I bespeak your cordiality in receiving delegates from New Jersey and from the other states who will be with us at New London.

As a Society we have a great deal to learn from New Jersey. They are very highly organized. They have a state budget of \$70,000 a year. Their dues are about fourteen dollars for next year. They were fifteen dollars this past year. They have something to learn from us. They are coming here this fall to learn how we conduct our Clinical Congress.

I was greatly impressed with the development of the Woman's Auxiliary — I am not at all certain that it is adaptable to this state or our membership — but there were 300 doctors' wives there, and certainly it added a great deal to the occasion.

One thing that struck me on the organizational side was the fact that every committee report, every report of the president, secretary, treasurer, and everything else, was printed in the Journal and in the hands of all of the delegates, in fact, all the members of the Society throughout the state, before the meeting. That is also done, as you may recall if you read your Journal, by the AMA.

All those reports are submitted during the meeting to a Reference Committee, (they had about eight reference committees) with supplementary reports given at the last minute in the first session, such as we had this morning. An opportunity is given at those reference committees for interested members to come and express their opinions about the reports and their criticism. The final report and recommendations for action were brought in to the House and a great deal of business was done in an orderly way.

I gained the impression that there was no delegate who need attend a meeting of that Society uninformed about all the things that he would be called upon to act on.

Dr. S. Bayne-Jones, delegate to the New York State Medical Society reported as follows:

"I attended the New York State meeting one day. Dr. Chester Brown was there on Monday when the real fireworks were on.

I thought the effect of some of the reference committees I saw in action down there was rather in the direction of opposing free discussion of some of the projects. I thought that the very careful work done by some of the committees that had been studying problems all during the year was referred to reference committees which spent a good deal less time on it, and there is a danger in that, in closing a thing up in a reference committee, that ought to be avoided. Dr. Brown can tell you more about that if he is here."

Adjournment followed.

## ADJOURNED SESSION

June 1, 1938

The adjourned meeting of the House of Delegates convened at 2:30 o'clock at the Hotel Griswold, Groton, Dr. Charles H. Turkington, President, presiding.

After the roll call the officers of the Society for 1938-1939 were duly elected as nominated at the Session of the House of Delegates held on May 25 (See Vol. II, No. 8, Pages 372-374).

The Committee of Twenty reported through its Chairman, Dr. George Blumer. The report follows:

After a careful consideration of the problems of medical care as discussed in the preceding part of this report, your Committee considered the advisability of attempting to formulate a program for this State. They came to the conclusion that the intelligent formulation of such a program necessitated accurate knowledge of the conditions surrounding medical practice in Connecticut. They felt that it was necessary to know the number of indigent in the State, whether they were receiving satisfactory medical care, and the number of low-income families and their medical problems. In brief, what was needed was accurate knowledge as to the details of the whole situation discussed in the earlier paragraphs. The recent plan of the American Medical Association and the questionnaires which have been formulated by that Association were considered. The Committee were of the unanimous opinion that this attempt on the part of the American Medical Association to obtain accurate knowledge of the conditions surrounding medical care all over the United States was a step in the right direction. They felt that some modification of the questionnaires might be necessary to meet local conditions. They were of the opinion that the practical difficulty in carrying out such surveys lay in the expense. The Committee was of the opinion that an attempt to carry out such a survey in the State of Connecticut by volunteer workers would not be satisfactory, that it would not be possible to obtain the necessary evidence in this way, and that such a report would be both inaccurate and misleading. It was felt that a satisfactory medical economic survey of the State of Connecticut could only be made at considerable expense.

Your Committee also discussed at some length the general subject of medical care. It was pointed out that neither medical care nor the organization of society were static. Changes are constantly going on and are likely to continue. The American Medical Association has published pamphlets in which many of the experiments which have been worked out by the medical profession in conjunction with the public were described. Your Committee felt that there was probably no subject which comes under discussion by the medical men of the State at the meetings of their official organization and at the meetings of the American Medical Association which was more important than medical care. For this reason they felt that some plan should be worked out which would create permanent committees, both state and national, which should have this subject under continuous consideration.

Your Committee therefore makes the following recommendations.

1. That the Medical Society of the State of Connecticut either continue the present Committee or establish a

permanent committee whose function shall be the continuing study of medical care, and report from time to time to the House of Delegates. This committee shall cooperate with properly constituted authority, to the fullest extent of its resources and its personnel in the development of a program directed toward making available to all the people of our State proper medical care.

2. That the State Medical Society at its own expense undertake a study of medical care in the State of Connecticut to be conducted by trained investigators at a cost not to exceed \$12,000. In such survey The Connecticut State Medical Society shall invite the cooperation of the Connecticut State Dental Society, the Connecticut State Hospital Association, the Connecticut State Nursing Association, Connecticut official health agencies and all such lay societies and private citizens as could properly aid in this investigation.

3. That this Society request the House of Delegates of the American Medical Association to establish a Council of the Association composed of individuals especially qualified to deal with the problems of medical care and to be known as the Council on Medical Care.

4. That this Society request the House of Delegates of the American Medical Association to urge that each State Medical Association should appoint a Committee on Medical Care to cooperate with the Council on Medical Care of the American Medical Association and suggest that each County Medical Association should also appoint a Committee on Medical Care to report to and cooperate with the State Committee on Medical Care.

Considerable discussion followed relative to the appropriation of \$12,000 for a study of medical care in the State. It was finally voted to accept the report with the elimination of Section 2 and to refer Section 2 pertaining to the appropriation of \$12,000 to the Council for consideration.

Dr. B. B. Robbins of Bristol presented a motion that "our Examining Board be instructed that it is the sense of this meeting that only those who have received the degree of M.D. from a reputable medical school may be examined by them to practice the healing arts in Connecticut." This was amended to include "any reputable medical school" and after considerable discussion was passed.

Dr. W. B. Walker of Cornwall presented the following resolution:

"WHEREAS, it has come to the attention of certain members of the Connecticut State Medical Society that the Governor and his Council has felt it to be essential to reduce the budgets of all the departments of the state by ten per cent, and

"WHEREAS, this action will seriously cripple the work of the State Department of Health and especially will lessen the number of examinations which can be made at the laboratory of the State Department of Health, and

"WHEREAS, this will be detrimental to the health of the community

"THEREFORE BE IT RESOLVED, that the Connecticut State Medical Society in this its annual meeting wishes to go on record as hoping that this proposed reduction be not applied to the budget allotted to the laboratory



of the State Department of Health, and that the Governor be informed of this resolution of the Connecticut State Medical Society."

This resolution was duly passed.

Dr. McGaughey of Wallingford presented the following resolution (previously referred to in report of Proceedings of House of Delegates for Afternoon Session, May 25):

"RESOLVED, that the vote accepting the Council's recommendation numbered six, captioned 'changes in the sanitary code,' and referring to a memorandum to be submitted to the Public Health Council concerning the requirements of blood pressure determinations, urine examinations and accepted serological diagnostic tests for syphilis for every expectant mother under the care of a physician, be rescinded, and

"BE IT FURTHER RESOLVED, that the recommendation of the Public Health Committee concerning these procedures be referred back to the Committee on Public Health for further consideration."

Dr. Linde explained that ordering physicians to do things put the Public Health Council on the spot and that it would be better to recommend that it might be carried out through legislative means rather than through the Public Health Council.

Dr. Osborn, State Health Commissioner discussed the resolution favoring its adoption and rescinding the previous vote of the House of Delegates. The resolution was duly passed.

Dr. M. T. Root of West Hartford presented the following resolution.

"Dr. Moore felt that because of the importance of this proposed Council on Medical Care, which our delegates to the American Medical Association are to urge at the coming meeting, it would be well if we gave them some specific suggestions as to the composition of this Committee. I therefore would like to move the adoption of the following resolution by this body:

RESOLVED, that the delegates to the American Medical Association be instructed to urge upon the House of Delegates of the American Medical Association the necessity for special qualifications of the members of the proposed Council on Medical Care, and also to urge that this Council include representatives from the Bureaus of Legal Medicine and Medical Economics, and also as ex-officio members, the Chairman of the Council on Medical Education and Hospitals, and the Council on Industrial Health and representatives of the United States Public Health Service, and the Health Sections of the United States Department of the Interior."

This resolution was passed.

Dr. Joseph I. Linde, President-elect, was then presented and responded with a few fitting remarks.

Adjournment followed.

## COMING MEETINGS

Clinical Conference, Medical Society of New Jersey, Newark, October 6-7.

Vermont State Medical Society, Burlington, October 6-7.

American Academy of Ophthalmology and Otolaryngology, Washington, D. C., October 9-14.

International College of Surgeons, Philadelphia, Pa., October 13-14.

Association of Military Surgeons of United States and Canada, Rochester, Minn., October 13-15.

American College of Surgeons, New York City, October 17-21.

Associated Anesthetists of the United States and Canada, New York, October 17-21.

Academy of Physical Medicine, Washington, D. C., October 24-26.

American Public Health Association, Kansas City, Mo., October 25-28.

International Medical Assembly of Interstate Postgraduate Medical Association of North America, Philadelphia, October 31-November 4.

Radiological Society of North America, Pittsburgh, Pa., Nov. 28-Dec. 2.

American Urological Association, Southeastern Branch Louisville, Ky., December 2-3.

American College of Physicians, New Orleans, La., March 27-31, 1939.

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## CONFERENCE OF MASSACHUSETTS MEDICO-LEGAL SOCIETY

"In answer to requests from numerous sources, the Massachusetts Medico-Legal Society has arranged for a two-day conference devoted exclusively to medico-legal topics. The conference will be held at the Mallory Institute of Pathology, Boston City Hospital, on Tuesday and Wednesday, October 4 and 5. The sessions will start at 9 A.M. each day and continue until late afternoon. On Tuesday evening there will be an informal dinner, followed by several short addresses. The topics to be covered at the conference will include talks and demonstrations by medical examiners, judges, lawyers, police officials, chemists and others expert along special lines.

It will be open to medical examiners and coroners, and also to physicians and lawyers who may be interested in medico-legal topics.

There will be no registration fee but those planning to attend are requested to apply in advance because the accommodations are definitely limited.

Application should be sent to Dr. William H. Watters, Chairman, Conference Committee, 270 Commonwealth Avenue, Boston, Mass."

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## REPORT OF DELEGATES TO AMERICAN MEDICAL ASSOCIATION

Mr. President and Gentlemen of the House of Delegates:

Your Delegates arrived in San Francisco Sunday evening, June 12th, and attended all of the meetings of the House of Delegates in the days following. The first session on Monday morning, June 13th, was devoted entirely to reports. After the Roll Call, there was voting on the doctor most worthy to receive the Distinguished Service Award, the choice finally going, by a large majority to Dr. Rudolph Matas of New Orleans. After receiving the Official Delegates from foreign countries, messages of sympathy were sent to Dr. Howard Morrow of San Francisco, the Chairman of the local Committee of Arrangements, and Dr. E. H. Carey of Dallas, both seriously ill. The address of the Speaker followed, in which he showed that he would not accept a renomination to this office, although he had received the affection and appreciation of all the Delegates. After the Reference Committees were appointed, the speeches of the President and the President-Elect followed, and the Annual Report of the Secretary came next. By this report he showed that there were about 4,000 more members on April 1st, 1938, than for April 1st of the preceding year: 109,435 being enrolled. Of the 1,621 members of our State Association, 1,054 were Fellows of the American Medical Association. The total number of physicians in Connecticut listed in the 14th Edition of the American Medical Association Directory was 2,401.

From the Trustees Report we find the total earnings for the year ending December 31st, 1937, were \$1,654,203.74, which was an increase of a little over \$100,000 over that of last year. The Operating Expenses were about \$73,000 more than the preceding year, being \$982,830.10. The Income for the year was \$122,242.92, of which amount \$83,563.74 came from interest on investments, while \$7,453.20 represented miscellaneous income. The re-modeled Association building with its two new stories and an assembly hall has proven very acceptable. The Journal showed that there were 1,008 Fellows in the American Medical Association in Connecticut who received the Journal, and 566 additional subscribers on the Journal mailing list. A publication of statements from the British Medical Association concerning medical economic conditions in Great Britain and the manner in which the British Medical Association is dealing with such matters aroused considerable interest, while the publication in the Journal of facts concerning the disastrous effects caused by the use of Elixir of Sulfanilamide was of great value, as well as the articles on the Therapy of the Cook County Hospital. The special journals had a larger circulation in the past year than in 1936, but only two of the journals produced income larger than the production costs: the loss incurred through their publication being somewhat less than \$8,000. There was also a loss in the publication of the Quarterly Cumulative Index Medicus of \$42,616.32, but the value of such a publication is very deeply felt. There was also a loss in the publication of Hygeia of \$31,004.90, but its usefulness merits the continuing of this publication. Time fails us to record other items of interest in the Report of the Trustees which should be read by our members to appreciate how valuable and varied are the interests there represented.

During the year the Bureau of Medical Economics has been especially active. It has considered group hospitalization and other forms of social security and realizes the importance of a survey of the need for medical care. The Committee claims that only about 10% of the population has been shown to be in need of medical care which they presumably desire but are not receiving, and that 90% of all sick persons are attended by physicians, and that the morbidity and mortality rates rank the United States as one of the most healthful countries in the world. The new forms of medical practice have been carefully considered by the Committee, and forms have been prepared for an exact study of medical care in all the states in this country. This study it is hoped will be done by all of the state medical societies. The increasing importance of the scientific exhibits, as well as the other exhibits, were especially stressed in the Trustees Report. The Report of the Committee to Study Contraceptive Practice and Related Problems, which is included in the Trustees Report, states that it is not the function of the American Medical Association to tell the physicians what therapeutic advice they should offer patients. However, it has been its policy to investigate various procedures, devices and drugs, and to publish the results of such studies in its official publications for the information of the profession.

The Treasurer's Report should be read as a whole and carefully studied, as well as the Report of the Judicial Council. The Report of the Council on Medical Education and Hospitals shows how thorough has been the study of medical schools and hospitals and how these schools and hospitals have profited by the kindly interest taken in them by this committee. The Report of the Council on Scientific Assembly speaks of the annual conference of the Section Secretaries with the Council, and shows the interest of this committee to make the Sections of the greatest possible interest to the members of the Association who are able to attend its meetings. These reports took up the first session, along with various resolutions which are stated in detail in the number of the Journal for July 2nd, 1938.

The second session on Tuesday morning was devoted largely to the reports of the different special committees that considered the resolutions presented in the House of Delegates on Monday morning. Dr. Follansbee of the Judicial Council recommended that the revision of the Principles of Medical Ethics be postponed, as these times are strenuous ones of rapid and radical change and no one can predict the immediate or remote future. After the reports of the different committees on the resolutions offered at the first session, Dr. Spencer T. Snedecor of New Jersey presented a resolution requesting that the Editor of the Journal be instructed to confine his writings to the official publications of the American Medical Association, as complaints had come to them that the Editor conducted a column in the daily press and edited a Modern Home Medical Advisor which was advertised with the claim that money could not buy better health guidance in very objectionable advertisements over which they claimed he had control. In the Executive Session Tuesday afternoon, June 14th, these charges were considered, and the Editor was completely exonerated. Many of us felt that his health columns gave much more reliable information in them than that obtained from the columns of Dr. Brady



and the late Senator Copeland. Dr. Fishbein showed that the objectionable advertisements of his book were only in the newspapers three days as they had violated the contracts for advertising which had previously been signed by him. Then in Miss Josephine Roche's absence, Dr. Warren F. Draper, a member of the House of Delegates, read the address which she was prevented from giving the House; a perusal of which I think will show anyone the number of errors which she has made in it, and which were corrected in a printed statement passed around during the meeting of the House of Delegates. Dr. W. F. Braasch, who is the Chairman of the Advisory Committee on Supply of Medical Care, next presented a report on the proposed survey which the American Medical Association wants accomplished in every state. It will do much to solve the proper solution of the question of medical care. Various other reports were submitted, and in the afternoon of that day your Delegates met the Board of Trustees and presented the recommendation from our Society that the House of Delegates of the American Medical Association establish a Council, composed of individuals especially qualified to deal with the problems of medical care, to be known as the Council on Medical Care, and suggested that each State Medical Association appoint a committee on Medical Care to cooperate with the Council on Medical Care of the American Medical Association, and also suggested that each County Medical Society also appoint a committee on Medical Care. The Trustees cordially appreciated the importance of the publicity to be gained through a knowledge that it had a council or committee so named, and subsequently reported that these recommendations were a part of the plan originated some months ago and were now in the process of becoming effective. The new Council on Medical Care consequently must await the working out of this plan before functioning.

The last session was held Thursday afternoon, June 16th, when the Delegate from the Canadian Medical Association, Dr. Carl Vrooman of Vancouver, addressed the House. He was followed by reports of some of the reference committees, and by remarks by the Past Presidents, Dr. Haggard and Dr. McLester, and by Dr. Charles M. Greenslade from Dunedin, New Zealand, who represented the New Zealand branch of the British Medical Association. In the election of officers which followed, Dr. Rock Sleyster of Wauwatosa, Wisconsin, was the only candidate presented for the position of President-elect, so he was consequently elected. Dr. Howard Morrow of San Francisco, who had been the Chairman of the Committee of Arrangements and who was quite ill during the meeting, was elected Vice-President, while Dr. Olin West and Dr. Herman L. Kretschmer were re-elected Secretary and Treasurer. Dr. Van Etten, having declined to run again as Speaker, was consequently not considered, and the Vice-Speaker, Dr. Harrison H. Shoulders of Nashville, Tennessee, then was elected to that position. Dr. Roy W. Fouts of Omaha was made the Vice-Speaker. The two Trustees whose terms had expired were re-elected, Dr. Austin H. Hayden of Chicago and Dr. Charles B. Wright of Minneapolis. St. Louis was chosen for the 1939 meeting, while New York City received the appointment for the 1940 meeting and Cleveland for the 1941 session. The House of Delegates adjourned sine die at 4:45 P.M.

The total registration for the San Francisco Session was 6,034.

Respectfully submitted,  
GEORGE BLUMER,  
WALTER R. STEINER,  
Delegates.

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#### REPORT OF DELEGATE TO MAINE MEDICAL ASSOCIATION

As delegate from Connecticut I attended the eighty-sixth annual session of the Maine Medical Association, which was held at Bar Harbor, June 26, 27 and 28, 1938.

There were group conferences each morning on various medical and surgical subjects, and scientific sessions each afternoon.

The program was so extensive that it was possible to attend only a small number of the meetings, but these were well attended and the subjects unusually well presented.

My impression of the session was that the program was well thought out and well carried out and that the Maine men were really hospitable to "foreigners" from other states.

Respectfully submitted,  
ALFRED C. HENDERSON.

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#### COLLEGE OF PHYSICIANS' MEETING DATES

The Twenty-Third Annual Session of the American College of Physicians will be held in New Orleans, with general headquarters at the Municipal Auditorium, March 27-31, 1939. Dr. William J. Kerr, San Francisco, president, will have charge of the program. Dr. John H. Musser, New Orleans, has been appointed general chairman of the meeting. Additional information concerning the meeting can be obtained by addressing Dr. E. R. Loveland, executive secretary, American College of Physicians, 4200 Pine St., Philadelphia, Pa.

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#### THE NEGRO IN MEDICINE

There are 4,000 negroes practicing medicine in the United States. The cognate professions of Dentistry and Pharmacy find 2,000 and 1,500 respectively, caring for the teeth and compounding prescriptions. The first Negro doctor in this country was Dr. James Derham of Philadelphia, who settled in New Orleans before the period of Washington's administration. The late Dr. Daniel H. Williams, a Negro surgeon in Chicago, performed the first successful operation on the human heart. He is given credit for this outstanding feat by the American Medical Association.—*Weekly Roster Med. Dig.*, Sept. 17, 1938.

## THE MEDICAL AND PUBLIC HEALTH BUILDING AT THE NEW YORK WORLD'S FAIR

by

Louis I. Dublin, Ph.D., F.A.P.H.A.

Chairman of the Executive Committee of the  
Advisory Committee on Medicine and Public  
Health

*(Special to the Journal of The Connecticut  
Medical Society)*

Hard by the Perisphere and Trylon — The Theme Center of the New York World's Fair which will open April 30, 1939 — stands a fine, modernistic building surrounded by trees and shrubs. It is gaily painted in three colors and is rich in decoration. Its cost was \$400,000. It covers an area of over 80,000 square feet. One of the outstanding structures in the grounds, it will house the Medical and Public Health Exhibits which, during the period of the Fair, will tell in simple yet dramatic manner the story of Man and his Health.

There are three main divisions in the building: The Hall of Man, The Hall of Medical Science, The Hall of Public Health. In these halls from 40 to 50 sections and exhibits will depict every phase of preventive and curative medicine — dentistry, nursing, hospitalization and allied branches of science and industry. At the conclusion of the Fair, it is expected that these exhibits will be moved to a permanent Museum of Health, where they will constitute the nucleus of an outstanding institution for public health education.

The exhibits are being prepared under the supervision of more than 350 distinguished medical men, public health leaders and experts in sanitary engineering, housing, and the various branches of medicine who comprise the Fair's Advisory Committee on Medicine and Public Health and its numerous sub-committees.

The entire presentation is being developed from the standpoint of subject matter rather than on a basis of exploitation of products or organizations. Absolutely no commercialism will be permitted, but sponsors of exhibits will receive generous recognition in plaques over sections and through the Professional Club which will be established in the building as a common meeting ground for professional men and women and for sponsors and their representatives.

Sponsoring agencies are of three types. Some are local and national health associations who accept the responsibility of sponsorship and who in turn provide financial support for the exhibit. Others are Foundations and wealthy public-spirited citizens. Yet another group is to be found in the commercial supply field, pharmaceutical supply houses, medical manufacturers, etc., who sponsor exhibits in their particular field of interest. As for instance, Eli Lilly & Company; Cherry Burrell Corporation; Lederle Laboratories; Winthrop Chemical Company; West Disinfecting Company, Ciba Pharmaceutical Products and Parke, Davis and Company.

The Medical and Public Health Building at the World's Fair represents the largest single undertaking in health education that has yet been attempted in this country. Pledges of support for this building to date represent expenditures of over half a million dollars. Twenty-three exhibits for a total of 13,000 square feet have been assured. Most of the sections will have individual sponsors but several of the larger units, running to 1,000 square feet or more, like the Hospital and the Sanitary Engineering Sections, will each be developed on a co-sponsorship basis with six to ten cooperative agencies.

In addition to the sections being developed through joint sponsorship the following exhibits are now in process of construction: Cancer, New York City Cancer Committee; Hygiene of Housing, John B. Pierce Foundation; Diabetes, Blood Diseases and Anemias, Eli Lilly & Company; Allergy, Pneumonia, Lederle Laboratories; Analgesia and Anesthesia, Winthrop Chemical Company; Occupational Infections and Sanitation, West Disinfecting Company; Heart Disease and Endocrinology, Ciba Pharmaceutical Products; Tuberculosis, Queensboro Tuberculosis and Health Association; Syphilis, Parke, Davis & Company; Veterinary Medicine and Public Health, The American Veterinary Medical Association; Milk Control, Cherry Burrell Corporation; Bacteriology and Virus Diseases, International Health Division Laboratory, Rockefeller Foundation; Maternal Health and the Professional Club.

The American Medical Association will develop the Section on Medical Education, covering a century's progress in medical science.



The exhibit plan for the Hospital Section is being worked out through the American Museum of Health, and that of the Dental and Oral Hygiene Section by the Dental Society of New York State, with the cooperation of the American Dental Association.

Each exhibit in the building will conform to a well conceived plan developed by the particular subcommittee in charge. Each exhibit, however, will be part of the general scheme. The architect, the exhibit designers, and those in charge of the project, all have had in mind the creation of a simple yet striking demonstration of the part which modern medicine is playing in the world of today and tomorrow. All are determined that the Medical and Public Health Exhibit — at the New York World's Fair — will be an outstanding success.



### THE TRAFFIC IN DRUGS

(Concluded from Page 480)

dollars and cents has operated in a direct and forceful manner to repress the information which might bring to the attention of the American public a true picture of the present situation.

We believe that there is no group that should be more vitally interested in an adequate law than the physicians of this country. The health and lives of our people are your principal concern. The wholesomeness of food and the purity of drugs, which a food and drug law is supposed to guarantee, are essential to the promotion of health. Judging by past experiences, unless you physicians make yourselves heard and vigorously lead a movement toward the realization of a more genuine safeguard than the present obsolete Federal statute gives, the unfortunate condition now existing will be prolonged for generations to come.



### FIRST AID MINDEDNESS IN THE TREATMENT OF FRACTURES

(Concluded from Page 485)

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### RE-EDUCATION OF THE PROBLEM DRINKER

(Concluded from Page 494)

over-tired." The relation between fatigue and excessive drinking is, of course, well established.

I could quote other examples but perhaps enough have been cited to indicate how personalities handicapped by unfavorable early environment may be readjusted. I hope that I have convinced you that a favorable prognosis may be held out for many problem-drinkers, that their personality maladjustments, of which their drinking is only the most conspicuous symptom, can often be corrected, especially in an environment of personal freedom. Further, that the important thing for the problem-drinker is not to remember to abstain, but to forget to drink. We must always bear in mind: that problem-drinking is a habit, a maladjusted habit. It is a *learned*, inadequate way of responding to life's difficulties. The problem-drinker must forget this inadequate way, and he must learn a new way — an adequate way of reacting to his difficulties, without alcohol. To learn this, he needs practice.

I shall be happy if I have secured your agreement on these points, for those of you who are family physicians are likely to be the first court of appeal in such cases and must often have mourned to see fine human material become flotsam and jetsam on the dark seas of alcohol.

### NEW ADDRESS OF THE JOURNAL OFFICE

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## Our Neighbors

### NEW HAMPSHIRE

At the annual meeting of the New Hampshire Medical Society held in Manchester in May the reception of visiting delegates was converted into a veritable old home day by the two delegates from the Connecticut Society, Paul R. Felt of Middletown and Thacher W. Worthen of Hartford. Dr. Felt was presented as the son of the president of the New Hampshire Medical Society in 1904 and 1905 while Dr. Worthen was introduced as the son of one of the outstanding citizens of New Hampshire who during a busy life had served as professor of mathematics at Dartmouth College and as a member of the Public Service Commission.



### RHODE ISLAND

A new active dental service has been established at the Memorial Hospital, Pawtucket. The main purpose of the service will be to find, and eliminate where necessary, all foci of infection having a direct bearing on the rapidity of recovery of hospitalized patients.



### MASSACHUSETTS

Dr. Joseph T. Smith, assistant clinical professor of obstetrics, Western Reserve University School of Medicine and a former editor-in-chief of *The Bulletin of the Academy of Medicine of Cleveland*, has joined the faculty of Tufts College of Medicine, Boston, to teach gynecology and obstetrics to general practitioners in short courses, under the provisions of the Bingham's Associates Fund.



Representatives of eight Ohio Valley states have agreed upon an interstate river pollution compact, which will be submitted to the state legislatures of Ohio, New York, Pennsylvania, Kentucky, Illinois, Tennessee, West Virginia and Indiana, for ratification.—*Ohio St. Med. Jour.*, Aug., 1938.

## - NEWS - from County Associations

### Hartford

St. Francis Hospital, Hartford, is experiencing a real need for a new building in order to house improved facilities. The number of patients cared for in 1937 increased about 25% over the previous year.

Dr. Russell V. Fuldner, chief of the Division of Crippled Children in the State Department of Health, has resigned to become a resident in orthopedic surgery at the Massachusetts General Hospital, Boston. Before taking up his new duties in Boston Dr. Fuldner contemplates a trip abroad.

Dr. Frank L. Waite, one of Hartford's oldest and most prominent ophthalmologists, died at the Hartford Hospital on September 1. He had been in poor health for some time following a cerebral hemorrhage which necessitated relinquishing his practice.

Dr. George N. Bell, 68, for 45 years a surgeon in Hartford, died at his home in West Hartford on September 10. Dr. Bell had retired from active practice ten years ago because of poor health.

James E. Carroll, M.D., Hartford, is the author of an article in the *Journal of the American Medical Association* for September 10 entitled, "True Auricular Fibrillation Compared with Muscle Tremors of Poliomyelitis."

Dr. William Holmes Crowley, 71, a director and staff member of St. Francis Hospital died on September 12 of heart disease. He had been actively engaged in practice in Hartford since 1900 and in Collinsville for the previous ten years.

Dr. Reynault Dobson Richman, 54, surgical advisor to the Aetna Life Insurance Company for 18 years and a retired lieutenant colonel of the Connecticut National Guard, died of heart disease at his home in West Hartford on September 16. Dr. Richman had been engaged in active practice with the Aetna Life Insurance Company until a few days before his death.



### Middlesex

Reports this week from the Connecticut State Hospital in Middletown are to the effect that the State Department of Public Works is about to proceed with a program of reconstruction costing approximately two million dollars. This building program has been a long felt need and while the bed capacity will not be particularly increased the present condition of overcrowding will to a great extent be relieved.

Dr. M. L. Palmieri, Middletown's local health officer, who was off duty for several days because of illness has returned to full time duty. Drs. James Murphy and Louis Loffredo were alternating acting health officers during his absence.



### New Haven

Dr. John C. Mendillo announces the removal of his office to 255 Bradley Street, New Haven, near Whitney Avenue.



### New London

Announcement has been received of the birth of a daughter, Barbara Phyllis, to Dr. and Mrs. William Wener of Norwich on July 2.

Dr. Harrison M. Gray, 61, city and town health officer of Norwich since 1930, died unexpectedly on August 26 at his summer home in Groton. Mayor A. W. O'Connell paid a very fitting tribute to Dr. Gray's ability and untiring devotion to his duties.

rectum. Careful diagrams depict clearly the arterial and venous channels of the portal circulation and the systemic circulation, and show their anastomosis at the level of the pectinate line. The signs and symptoms of hemorrhoids, together with their predisposing causes, are outlined and emphasis is made of the point that hemorrhoids may be the signal of more serious underlying pathology such as carcinoma, cardiac failure, liver disease, etc.

The latter chapters of the book are given to a discussion and presentation of the accepted modes of treatment. The injection treatment of internal hemorrhoids is carefully taken up and presented in detail. Several formulas for the commonly used sclerosing agents are presented. The technique of injection is fully described in the text and clearly depicted in the illustrations. It is emphasized that "only simple internal hemorrhoids, without complications, are suitable for the injection treatment." The operative, pre-operative and post-operative management of internal hemorrhoids is discussed at length. The author favors the excision and suture method. Warning is presented against surgical interference in the treatment of hemorrhoids in the face of acute inflammation around or in the rectum, such as abscess or acute fistula. Electrocoagulation is mentioned as a method of therapy and discarded because of the discomfort which it is said to produce and also because of the difficulty in estimating the penetration of the current.

In conclusion the author feels that the results from operative treatment are more permanent than from the injection method. It is estimated that internal hemorrhoids are cured by the injection treatment in about 80% of the cases, while surgical therapy produces cure in from 92% to 96% of the cases.

R. S. Lampson



## THE DIAGNOSIS AND TREATMENT OF SEXUAL DISORDERS

by Max Huhner, M.D.

Attending Surgeon, Bellevue Hospital Out-Patient Department, New York

490 pages

Philadelphia, Pa. F. A. Davis Company 1937

Dr. Huhner is an authority on the disorders of sex, and in this book, he presents the experiences of a life-time spent in this work.

Dr. Huhner decries the practice of the psychoanalytic school, which attempts to explain all sexual disorders on a psychic basis. He is careful to point out that he finds no fault with the scientific psychoanalyst, who proceeds physically, only after organic sexual pathology is ruled out.

The section on sterility in the male and female, with a description of the Huhner Test in the female, represents a most important branch of Huhner's work.

Dr. Huhner throughout the book attempts to place sexual disorders on a scientific anatomic basis, where possible, and by so doing, removes many misconceptions and superstitions attached to the subject.

While little that is contained in the book is new, having appeared under Dr. Huhner's name in Journals during the past 20 years, it is here set down fairly concisely,

## • Quarto Notes •

### HEMORRHOIDS

by Marion C. Pruitt, M.D.

L.R.C.P., S. (Ed.), F.R.C.S. (Ed.), F.A.C.S.  
Atlanta, Georgia

President, American Proctologic Society

73 Illustrations 7 in color \$4.00  
St. Louis The C. V. Mosby Company 1938

The author has presented clearly and concisely the background, differential diagnosis, and treatment of the various type of hemorrhoids. The early portions of this book are given to a brief but accurate presentation of the anatomy of the lower rectum and anus. Particular emphasis is laid upon the vascular supply to the anus and

although at times, the importance of the subject looms so large in the author's mind that he becomes slightly repetitious. Over and over in his book he mentions the importance of sexual satisfaction in the female as well as in the male, and he attributes many female disorders to the pernicious and selfish practice of the male of satisfying his own desire without satisfying that of his wife. Much of this he traces to definite pathology in the male, usually in the form of verumontanitis which results in premature ejaculations. In these cases Huhner uses solutions of dilute silver with good results. He condemns the use of strong silver, but the reviewer has used solutions of silver as strong as 50% with no untoward results.

While little criticism can be made of the sections of the book devoted to etiology, pathology, and symptomatology, the same cannot be said of the sections on treatment. The author apparently mixes a little psychic treatment with his urological treatment, as evidenced by the use of electricity in the form of sinusoidal and galvanic currents. Electric treatments, perhaps because they have been abused by quacks, are looked upon rather suspiciously these days.

But one must not pick at straws. Dr. Huhner and his book have cast the light on a subject heretofore shrouded in mystery.

Charles Mirabile



## PRACTICAL OTOTOLOGY, RHINOLOGY AND LARYNGOLOGY

by Adam Edward Schlanser, M.D.

Colonel, Medical Corps, United States Army

81 Illustrations	315 Pages	\$4.50
Philadelphia	Lea & Febiger	1938

This book discusses diseases of the ears, nose and throat from a clinical point of view. Although meant primarily for the Army Medical Officer, it discusses the subject matter for the prospective of any physician practising medicine. It is a clinical work in which considerable detailed anatomical, physiological and pathological details are omitted, for the author assumes that the reader has the necessary background.

As a change from the usual text-book method, diseases are discussed under symptoms, not under the titles of diagnoses, because "a case does not come as an acute otitis media. . . . but rather as an earache." The book makes no attempt to create specialists out of the readers, but does try to provide "a readily available medium of reference, advice and information, with the subject matter in conformity with his own mental processes and embracing the precise idea over which he is deeply concerned."

The subject matter covered is as complete as most text-books of otolaryngology. In the chapters on the ear, all the usual and most of the unusual subjects receive their just due. Functional deafness receives more than the usual space and is a worthy contribution. Information given in the paragraphs on examination of the vestibular apparatus is more precise and understandable than the contributions in the larger text-books.

Diseases of the nose and paranasal sinuses are well dis-

cussed and methods of treatment well delineated. It is unfortunate that the newer work by Fenton and others on the effects of drugs on the ciliated nasal mucous membrane is not included, for it seemingly upsets the pragmatic use of aromatics and oils in the nose. The author offers hope of good results to the many sufferers of chronic sinusitis. Nasal deformities receive a worthy consideration and in the chapters of this book it is shown how deformities, many of severe degree, can be corrected with special techniques.

In the chapter on diseases of the throat, for Vincent's angina an unusual mouth wash of bichloride of mercury and peroxide is advised — a dangerous suggestion for it puts poison too near home. General anaesthesia is advised for incision and drainage of peritonsillar abscesses; many, it is hoped, will disagree and fail to follow this advice. The paragraphs on the tonsil as a focus of infection are concise and well worth attention of anyone who has this question arise in his practice.

The details of pre- and post-operative nursing and medical care for various laryngeal conditions are the bright spots of this section. Endoscopy, that subspecialty of otolaryngology, is not given sufficient space. Its possibilities for diagnosis and treatment are scarcely touched upon, perhaps because the major sources of this subject are known to all and are readily available.

The book is well written, edited, and printed, so that its context is easily available to those who would like to know. References are lacking, a great fault in any text book, for where interests are aroused, fertile fields should be suggested for more enlightenment.

William J. Neidlinger



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Owned and Published Monthly by  
THE CONNECTICUT STATE MEDICAL SOCIETY

Editor-in-Chief - STANLEY B. WELD, M.D.,  
54 Church Street, Hartford, Connecticut

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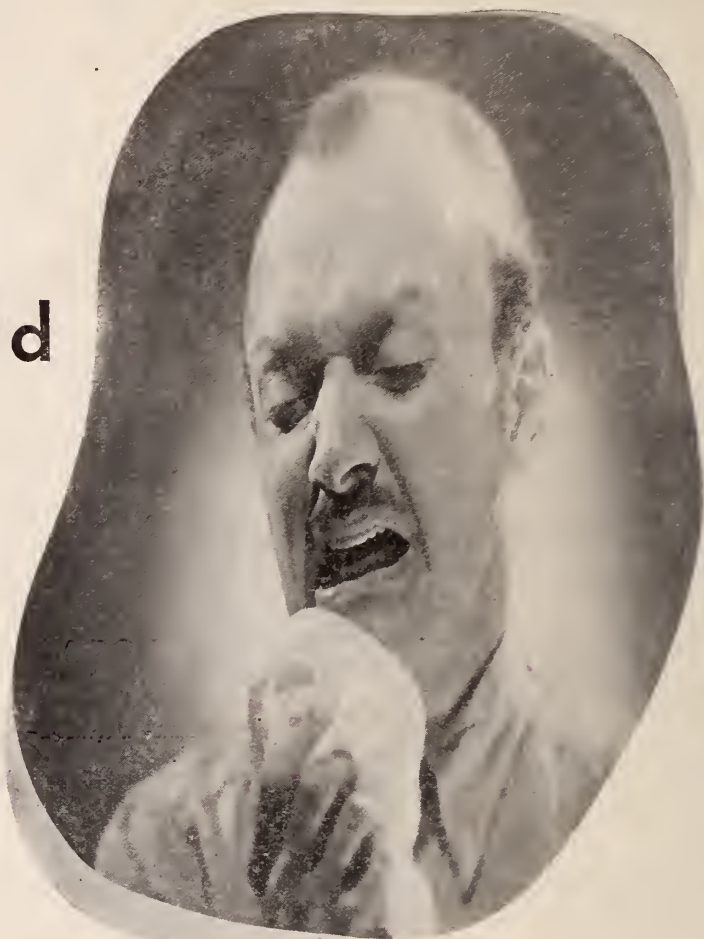
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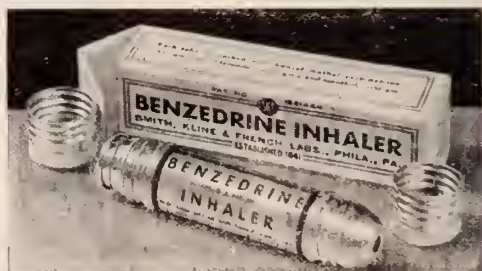


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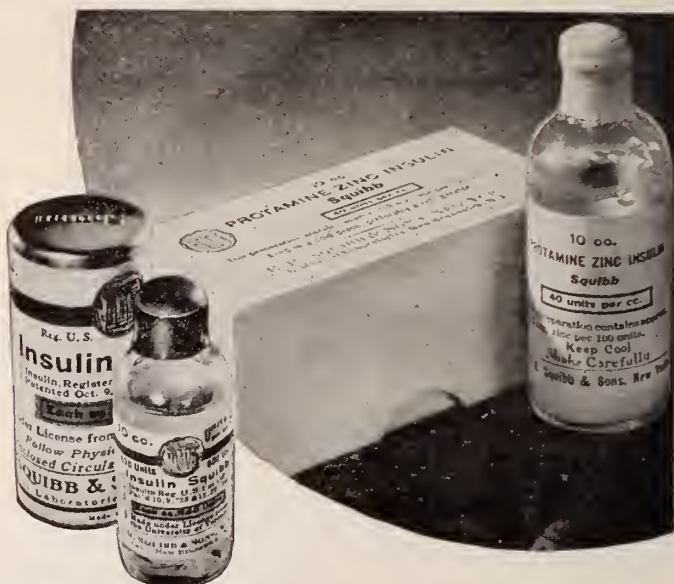
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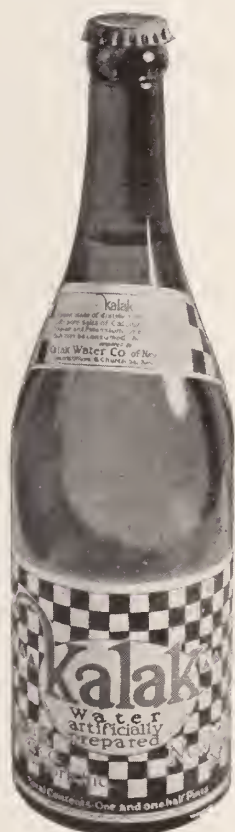
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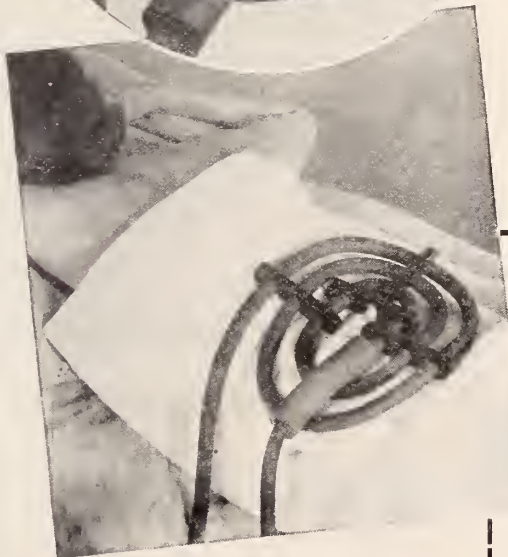


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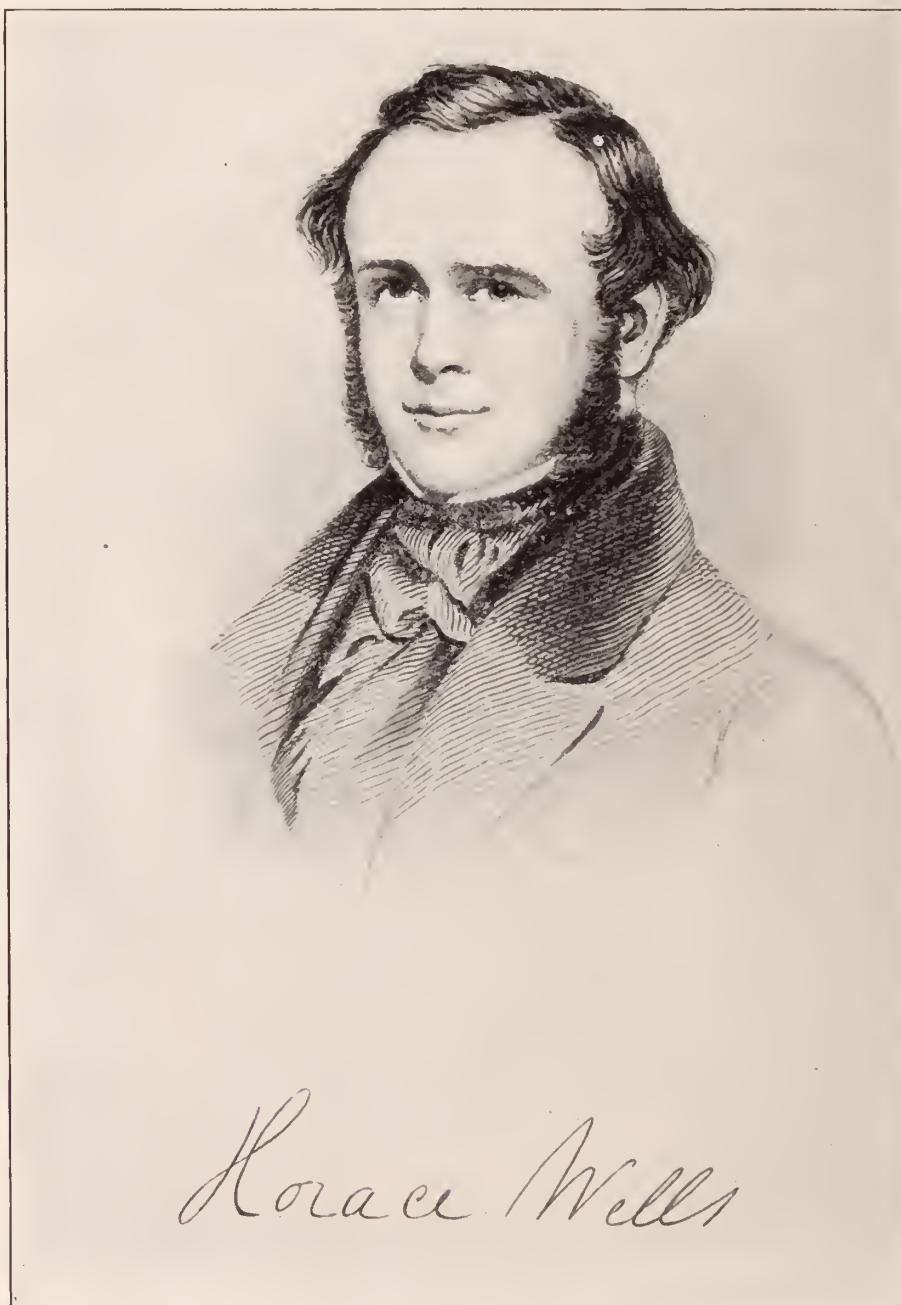
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HORACE WELLS

Born — Hartford, Vermont  
January 21, 1815

Died — New York City  
January 24, 1848



J



# JOURNAL *of* The Connecticut State Medical Society

VOL. II.

NOVEMBER, 1938

No. 11

## Horace Wells and His Discovery of Anesthesia\*

WALTER R. STEINER, M.D., Hartford, Conn.

To make a discovery, one must find out or invent something, then demonstrate it and proclaim it to the world; finally, he must convince the world of the validity of his discovery. It is not debatable, I think, that Crawford W. Long first used ether in 1842, but he did not proclaim it to the world, which knew nothing of what he had done until 1849. On the other hand, after Wells discovered the principle of anesthesia, he demonstrated it satisfactorily here in Hartford and proclaimed it so that it was universally known in Connecticut and other portions of the United States. It is true that his demonstration before the Harvard Medical School was not completely successful for the patient cried out, although he afterwards said he felt no pain. Subsequently, the truth of Wells' claim was believed in by the Hartford Medical Society in 1859, the Connecticut State Medical Society in 1876, the American Medical Association in 1870 and the American Dental Association in 1864. Similar resolutions acknowledging Wells' priority in the discovery, also came from the New York State Medical Society in 1860, and from the Gynecological Society of Boston in 1870. Unfortunately, although credit was given him for the discovery from these different sources and elsewhere, yet the whole world has not been entirely convinced, and some give credit to Dr. William T. G. Morton, who it seems discovered anesthesia in 1846, two years after Wells had made it known. The other claimant from Boston was Dr. Charles T. Jackson.

The story of Wells' discovery of anesthesia is as follows. On the morning of December 10th, 1844, an itinerant lecturer on Chemistry, Profes-

sor G. Q. Colton, came to Hartford. Previously he had advertised in the local papers a grand exhibition of the effects produced by inhaling nitrous oxide, exhilarating or laughing gas. At this entertainment Dr. Wells, accompanied by Mrs. Wells, was present and witnessed the mad antics of a man named Samuel A. Cooley, who had taken the gas and while under its effects had hurt one of his legs until it bled, but had not felt any pain. Impressed by this episode, Dr. Wells remarked to a friend seated next to him: "I believe a man by taking this gas could have a tooth extracted or a limb amputated without feeling pain". On the next day, Wells had Mr. Colton administer to him this gas while his friend, Dr. Riggs, extracted a tooth. When this was done and Wells had recovered from the effects of the gas, he exclaimed: "It did not hurt me more than the prick of a pin. A new era in tooth pulling. It is the greatest discovery ever made." Thereafter he gave this anesthetic with success to a number of his dental patients, and administered ether once, but preferred the use of nitrous oxide. He also communicated his discovery to Dr. William T. G. Morton who studied under him and was, for a short time, his partner in Boston. Wells however, being of an unstable equilibrium, was upset by those opposing his claims, so he suffered several periods of illness, gave up his practice of dentistry for a while, lectured on Natural History and became an agent, for a short period, of a certain patented shower bath. He went to Paris during the latter part of his life, but his claims were disallowed there by the Academy of Medicine. Returning to this country he moved to New York, where his mind

\*An address delivered at Trinity College, Hartford, December 11, 1937, on the occasion of the dedication of a pew end in honor of Horace Wells by the Horace Wells Club of Connecticut.

gave way, and he committed suicide on January 24, 1848.

Mr. Thomas Lee of Boston, unable to decide as to which of the two Boston claimants was the proper discoverer, left a sum of money for a monument in the Boston Commons which is inscribed: "To the Discovery of Anesthesia", without mentioning the names of either Morton or Jackson. It is said that Oliver Wendell Holmes once passing the monument remarked that they ought to have put on it, "To Ether". One day a father and his son were gazing at this monument, which represents the story of the Good Samaritan. The Samaritan is here seen as "a venerable person with a patriarchal beard, who holds upon his knee the supine body of a youth." Suddenly the little lad looked up at his father and exclaimed: "That's Abraham, and he's going to kill little Isaac." Later, Dr. S. B. St. John of Hartford was passing this monument with a Boston physician, and noting the inscription he asked why they had not mentioned any name. The answer was not to his liking, so when he returned to Hartford he made a photograph of the statue to Horace Wells in our Bushnell Park, and wrote on the back of it: Acts, 17:23, which, when the Boston doctor consulted it, read: "For as I passed by and beheld your devotions, I found an altar with this inscription 'To the Unknown God'. Whom therefore you ignorantly worship, him declare I unto you."



#### MERGER OF THE UNIVERSITY OF PENNSYLVANIA SCHOOL OF MEDICINE WITH THE PHILADELPHIA ORTHOPEDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES

With the legal recording of a merger between the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases and the University of Pennsylvania the first step has been taken in a program under which the medical and hospital facilities of the university will be substantially increased and developed in particular fields.

As part of that program, revealed July 1, 1938, for the first time by Dr. Thomas S. Gates, president of the university, the orthopedic and neurologic work of the Orthopedic Hospital and of the University Hospital will be combined eventually and will be carried on in buildings to be provided at the University Hospital.

In the meantime, various changes and additions involving the expenditure of more than \$1,000,000 for construction work alone will be made in the present plant of the University Hospital.—*Penn. Med. Jour.*, Sept., 1938.



#### NEW SECRETARY IN CALIFORNIA

Dr. George H. Kress, Los Angeles, a graduate of the University of Cincinnati, College of Medicine, 1899, has been appointed secretary-treasurer and public relations director of the California Medical Association, succeeding Dr. Frederick C. Warnshuis who held those positions for the past four years after serving for many years as secretary of the Michigan State Medical Society. Dr. Kress will continue to edit *California and Western Medicine*, official publication of the California Medical Association but has relinquished his positions as a member of the California State Board of Health, dean of the Los Angeles Medical Department, University of California, and president of the Los Angeles County Medical Association.

Dr. Warnshuis has accepted the presidency of the American Medico-Legal Association with headquarters in Boston, which aims to coordinate all branches of the medical profession and to seek uniformity in rules and regulations dealing with medico-legal work. He will serve as editor of the association's bimonthly publication, the first issue of which will appear in September.—*Ohio St. Med. Jour.*, Aug., 1938.



#### PUBLIC HEALTH MUSEUM IN CALIFORNIA

A permanent public health museum, perhaps the first in the United States, which would reveal many of the present secrets of plague suppression, and the campaigns against such epidemics as typhoid, tuberculosis and diphtheria, will be one of the principal developments of the Golden Gate International Exposition, if plans now being drawn up by the American Public Health Association finally materialize. It is hoped to locate the museum somewhere in the San Francisco Bay region, possibly in San Francisco. It will be so set up that displays of specimens and procedures may be sent to any point in the West and to the three Canadian provinces claiming membership in the Association.—*Cal. West. Med.*, Aug., 1938.



# Hypnotism and its Relation to Anesthesia\*

BERNARD B. RAGINSKY, M.D., C.M., F.I.C.A.  
Montreal, Canada

I am not unmindful of the privilege afforded me this evening to discuss one aspect of anesthesia at the very shrine of the science of anesthesia itself, for it was not very far from this very spot, about a century ago that ether and nitrous oxide were first used as anesthetics and where Horace Wells, and Morton did their pioneer work in this specialty.

Hypnotism for the alleviation of pain has been practised by mankind in some form or other throughout the ages.<sup>1, 2, 3, 4, 5, 6.</sup> The most familiar form is that seen when a child is hurt and runs to its mother. She strokes the injured part, reassures the child, takes it up in her arms and rocks or sings it to sleep. In this procedure she is unknowingly exercising an hypnotic influence.

A review of the world's literature on the subject of hypnotism reveals a paucity of original scientific investigation during the past twenty-five years. I have condensed it and present the material in such a way as to make the demonstration which is to follow more understandable in its application to anesthesia.

Hypnotism, or the artificially enhanced state of suggestibility, resembling sleep has been known for centuries. It is purely a psychical state in which the subject's attention is concentrated on the operator and during which he can carry on a conversation or walk about as directed; while in ordinary sleep the subject loses connection with the outside world and this sleep is dependent on changes in the circulation and in the brain. It is helped along by fatigue and other physiological changes <sup>7, 8, 9, 10, 11.</sup>

In ancient days there was neither understanding of it nor appreciation of its nature, and it was attributed to the powers of darkness and magic. Unfortunately, this state of affairs still exists to a great extent amongst not only the laity but also the medical profession. It is well known that ancient conjurers, magicians, and fakirs,

particularly among the Hindus, practised various forms of hypnotism. Even in the present day Hindu Fakirs are peculiarly adept in this procedure. The methods of priests in ancient times, in healing the sick, appear to have been of a hypnotic kind. Celsus, the Roman physician, tells us that the old Greek father of physic, Asklepiades practised light friction as a means of inducing sleep in frenzy and insanity; and what is more remarkable, he says that by too much friction there was a danger of producing lethargy. In all ages, and amongst all nations, a certain sanative efficacy has been ascribed to the touch of the human hand, to the placing of it upon a sick person, or rubbing with it any part of the body that may happen to have been exposed to injury.

The first practice of suggestion as a therapeutic measure as used at the present time, began with Mesmer around 1800 <sup>12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22.</sup> Because of his development of the art, the word "mesmerism" was adopted as a descriptive term. His practice of suggestion therapy consisted in stroking gently the arms and ailing parts of the patients, thereby "transferring" to them the healing qualities of "animal Magnetism", a magnetic fluid more subtle than ether which he believed permeated the universe and possessed of great healing properties. He enhanced the suggestibility by the use of beautifully decorated apartments, illuminated carefully with subdued lights, and rooms filled with the odor of incense and the walls covered with velvet hangings. In addition there were usually the gentle tinkle of running water and soft faint music. Often as would be expected, he achieved satisfactory and even startling results with patients who had been abandoned by orthodox physicians. Critical observers at his clinic saw patients sent out to touch "magnetized" trees, thereby becoming healed. However, it was noticed that patients were cured even when they touched the wrong tree. Consequently the opinion developed that

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Mesmer was a charlatan and there was at that time no realization of the psychological truths of this therapy<sup>23</sup>.

The next great figure in hypnotism was John Elliotson, professor of medicine at the University College, Edinburgh<sup>24, 25, 26</sup>. Around 1840 he began his researches in hypnotism or "mesmerism" as it was called then. As the results of his efforts, "Mesmeric Infirmarys" were established in Edinburgh, Dublin and elsewhere where many surgical operations were performed upon mesmerised patients. More than two hundred operations were done by one surgeon alone under this type of anesthesia. In 1843, a booklet entitled "Numerous Cases of Surgical Operation Without Pain, in Mesmeric State", by John Elliotson, M.D., F.R.S., was published giving an account of these operations. It is interesting to contemplate that mesmerism as an anesthetic might certainly have come into general use had it not so happened that, just as its merits were becoming known, chloroform anesthesia was introduced by Sir James Simpson four years later. Orthodox medicine committed to a denial of the efficacy of psychic healing, welcomed the new anesthetic with acclamation.

Elliotson was succeeded as champion of "mesmerism" by James Esdaille, who, under governmental protection, succeeded in the application of hypnotism to medical cases and was instrumental in the founding of a hospital in India for this express purpose where several thousands of minor and three hundred major operations were performed under mental anesthesia only<sup>27</sup>. Records of these cases are still available. Following Esdaille comes James Braid who took up the study of hypnotism in 1841<sup>28, 29, 30, 31</sup>. It was due to his researches that mesmerism was placed on a scientific basis, and his coining and application of the terms "hypnotism" and "hypnosis" instead of the misnomer "mesmerism" facilitated its acceptance by the medical profession. He made a detailed study of the technique of hypnosis and the various phenomena obtained in trances.

More recently in France, Doctor Liebeault of Nancy, held that the key to all hypnotic phenomenon lay in "suggestion"<sup>32</sup>. He held that hypnotism was not an instrument, let alone a curative principle but merely a psychical condi-

tion in which another instrument, suggestion, could be more readily applied than in the normal waking condition. He found that a patient might be hypnotised every day for a month without advancing his recovery in the smallest degree, but that, if during hypnosis it was suggested to him that recovery was about to take place, then, during the waking state, something within him proceeded to carry that suggestion into practical effect. His pupil, Doctor Bernheim published a book entitled "Therapeutic Suggestion" which made these theories popular<sup>33, 46</sup>. In a few years Bernheim hypnotised about 10,000 patients and was successful in 85% of his cases.

Meanwhile another large school had grown up in Paris under the guidance of the famous Prof. Charcot who declared that the state of hypnosis was nothing but an artificial nervous condition, a neurosis akin to hysteria, the various manifestations of which could be aroused at the will of the hypnotiser both by physical and psychical means<sup>34</sup>. We know now that Charcot's views of hypnosis was influenced largely by the fact that his experiments were made chiefly upon females already in a highly nervous state. When experiments are made upon other types the results are very different from those recorded by Charcot. Hence the Nancy school has steadily increased whereas the Charcot school has lost favour.

May I digress here, for a moment, to link up psychoanalysis with hypnotism? In 1885 Freud went to Paris to work with Charcot. It was here that he learned to think of hysteria as due to dissociated mental elements. Three years later he went to Bernheim's clinic at Nancy and observed that in post-hypnotic suggestion, people act from unrecognized motives. For instance, a patient told to open an umbrella after waking from hypnosis will give an irrelevant reply when asked the reason for his action, and will not say it was suggested by the hypnotist. This shows that he is unaware (unconscious) of the idea given him in hypnosis and that the amnesia (forgetfulness) is filled in unconsciously by a statement (phantasy) which is not true. If Bernheim told his patients they had not given the true reason for certain acts, and urged them to recall the suggestions received during hypnosis, they were usually able to do so. Bernheim thus enabled his patients to bring to consciousness certain unconscious ideas. Here then are



the foundations of the cathartic method which Freud and Breuer described in their "Studies in Hysteria" in 1895<sup>35</sup>. Breuer had treated a girl for hysterical deafness and paralysis of the arm. In hypnosis she told of numerous experiences related to her symptoms. When these experiences were told to her in the waking state, her symptoms vanished. This was really the starting point of psychoanalysis as an independent therapeutic measure. Freud later abandoned hypnotism because it was laborious and frequently inapplicable. He discovered that by simply asking patients to speak out everything that came to mind pathogenic experiences eventually came to light. The importance of rejected, repressed, illogical material and childish emotions became more apparent<sup>36, 37</sup>. More recent scientific leaders who have studied hypnosis are G. Stanley Hall<sup>38, 39</sup>, William James<sup>40</sup>, Morton Prince<sup>41</sup>, Sir William Crookes and Pierre Janet<sup>42, 43</sup>, but time does not permit more than the mention of their names.

The methods employed in inducing hypnosis vary widely among operators<sup>2, 44, 45, 27, 46, 47, 48</sup>. It is wise to vary the technique from subject to subject, fitting it to the peculiarities of each personality. As a result of the present day scientific understanding of the subject, the technique of direct verbal suggestion is the most common in use. Drugs also may be utilized to aid in producing hypnotic states but the results are often unsatisfactory since the narcotic effects frequently interfere with trance manifestations<sup>49, 50, 79</sup>. The drugs most commonly used are the barbiturates. I shall elaborate further on this aspect during the demonstration.

There are a number of questions concerning hypnosis that must be mentioned since they arise at every discussion of the topic. In the first place, many ask whether it is harmful. A study of the scientific literature on the subject reveals no good evidence of harm inflicted or any other logical theoretical possibility of injury other than that which might accrue from ordinary personal contact in the waking state<sup>51, 52, 53, 54</sup>. Nevertheless, hypnotism is not a matter for superficiality and carelessness, but should be utilized only by capable and trained medical men as are other complex and difficult techniques<sup>55, 56</sup>.

The second question is "What would happen if you could not awaken the subject?" The

experience of capable investigators who have questioned this possibility indicates that such a likelihood could not occur. As for the question of what would occur if the operator suddenly died or left his subject, there would be one of two results. Either the trance sleep would lapse into a natural sleep or the subject, becoming aware of the absence of the operator and sensing the loss of contact with him would awaken spontaneously to ascertain the nature of the situation. Essentially, hypnosis is a relationship between two people and when one of them is removed from the situation, the phenomenon then ceases because there can no longer be the cooperation necessary between the two.

There is another and indirect implication of these questions which deserves an answer. This is the assumption that the sudden and absolute withdrawal of the operator or his unwillingness to awaken the subject would wreak irreparable harm. This idea is a continuance of the ancient superstition of "strong mind — weak will" arising from the mistaken idea that hypnotism, in some subtle, occult fashion, altered the very being of the subject, thereby giving the hypnotist unlimited power and control over the entranced person. Fortunately in the light of present-day psychological knowledge as well as experimental findings the absurdity of such ideas has been established<sup>52</sup>.

Another problem which arises is the question of whether or not an unscrupulous hypnotist could make use of the art for malicious and criminal purposes. Briefly, the answer obtained by careful and thorough investigators is in the negative. The loss of environmental orientation in trance states constitutes an actual obstacle in the misuse of this method. Further, when it is considered that the operator must implant his suggestions in the vast aggregate of mental reactions and patterns accumulated through the patient's lifetime, the great difficulty of causing extensive changes and alteration of behaviour and personality reactions is apparent. Indeed, what marvels of mental catharsis and psychotherapy could be achieved were it possible to establish significant and meaningful alterations of personality reactions by a few suggestions given in a time-limited situation<sup>57</sup>.

A fourth question is "What is hypnotism?" Is it some mystic occult magical formula based upon the overwhelming influence of a strong

personality upon a weak will and accompanied by the emanation of a secret power? Actually, of course, it is not. On the contrary, it is a psychological phenomenon as little understood as most psychological phenomena<sup>58, 59, 3, 60, 1, 61, 44, 46, 10, 62, 63</sup>. It requires no unusual personality or strong will on the part of the hypnotist nor weak will or feeble intellect on the part of the subject. Any person willing to learn the psychological principles involved can perform hypnosis. It is purely a matter of technique, a technique of convincing and persuasive suggestion similar to that utilized every day in ordinary commercial life for quite other purposes. Just as anyone can be a hypnotist, so may anyone be a subject, excluding only the extremes of age and those of too profound mental abnormality<sup>64, 65, 66, 67</sup>. The best subjects are the highly intelligent, highly sensitive people with good control of their mental faculties, while those of lesser endowments are more difficult and less satisfactory to work with and are limited in their performance.

What hypnosis actually is can be explained as yet only in descriptive terms. Thus it may be defined as an artificially enhanced state of suggestibility resembling sleep wherein there appears to be a normal, time-limited and stimulus-limited dissociation of the "conscious" from the "subconscious" elements of the psyche. This dissociation is manifested by a quiescence of the "consciousness" simulating normal sleep and a delegation of the subjective control of the individual functions, ordinarily conscious, to the "subconscious". But any understanding of hypnosis beyond the descriptive phase is purely speculative. The phenomena vary in degree and variety with every subject, depending, of course, upon the innate endowments of the person. Furthermore, all phenomena do not necessarily occur in every subject, but manifest themselves variously, some subjects failing to show this or that particular characteristic<sup>6, 68, 69, 70, 71, 72, 73, 74</sup>.

Hypnosis is a result, first of all, of cooperation. Without full cooperation between subject and operator there can be no hypnotism. Unwillingness to be hypnotised, admitted or concealed, signifies a failure of the essential cooperation and consequently a trance does not and cannot occur. This necessity for cooperation constitutes a further indication of the improbability of inflict-

ing harm upon the subject and also exposes the fallacy of the belief that one can be hypnotised surreptitiously. As the subject goes into the hypnotic sleep, the field of consciousness narrows and external stimuli, except those given by the hypnotist, lose their significance. Ultimately the subject loses contact with the external world except for the operator. Essentially, the "consciousness" is in a state of sleep, while the "subconsciousness" is left in control and in rapport with the hypnotist. This rapport which constitutes a fixed phenomenon of hypnotic trances, may be defined as a state of harmony between the subject and hypnotist with a dependence of the former upon the latter for motivating and guiding stimuli, and is somewhat similar to the "transference" of the psychoanalytic situation. It enables the hypnotist to remain in full contact with his subject while to the rest of the world the hypnotised person remains an unresponsive object. This rapport may be transferred by the command of the operator to any designated person, and subjects who distrust the hypnotic state but permit hypnosis may spontaneously retain rapport with anyone they wish as they go into a trance.

Another phenomenon which I hope to demonstrate later is the marked suggestibility occurring in the trance<sup>75</sup>. Any suggestion not objectionable to the subject will be accepted and acted upon. Thus he will become paralyzed, anesthetic, deaf, blind, hallucinated in all spheres, accept as the truth any variety of suggestions, and act upon them provided they are not objectionable. If they are offensive there is a failure of cooperation and the suggestions are without effect.

Catalepsy is another characteristic which appears without direct suggestion<sup>76</sup>. The subject appears to be unable to move the arm nor does he seem to experience any sense of fatigue. Some experimental work done in this regard suggests that there is a definite lessening of the sense of fatigue, permitting the performance of work actually past the point of normal capacity<sup>77, 78, 80</sup>.

Another feature of the trance is that of post-hypnotic suggestions<sup>81, 75</sup>. While in the trance state the subject may be given a suggestion to be performed or acted upon at a designated time after awakening and he spontaneously — as he thinks responds in the designated fashion with no



realization of why he does so. In this phenomenon lies the greatest therapeutic advantage of hypnosis, since thereby the subject can be given suggestions to guide his later conduct.

Another characteristic of hypnosis is amnesia. The subject's recollection of events occurring during the trance is approximately inversely proportional to its depth. One who has been in a profound trance has a complete amnesia for all events, suggestions, and experiences occurring therein, even though he has walked down the street, talked to friends, and eaten a meal. However, this amnesia may not remain total, since he may at a later date, recall everything spontaneously as if in a dream. But for all practical purposes there is an actual amnesia.

Finally there can be induced in trances by means of posthypnotic suggestions a state of somnambulism wherein the subject appears to be normally awake. He may perform all the routine duties of daily life or successfully cope with any chosen situation, but he does so in a trance state and upon awakening has no recollection of any events which occurred. In appearance and nature this somnambulist state is an experimental equivalent to the states of dissociation in dual personalities met in psychiatric practice. It differs only in being benign, time-limited and wholly dependent upon definite suggestions from the hypnotist.

Hypnosis has a definite value in the practice of medicine which was shown very early in its history, and as medical men acquire a better understanding of psychology, its value will probably increase. In general practice the technique can be utilized to quiet and reassure the patient and to establish that desirable state of rapport between physician and patient connoted by the term "bedside manner". In Europe, particularly in Germany and France, it has been used to some extent as a direct surgical aid in both major and minor procedures<sup>82, 83</sup>. In certain patients it can be used as a substitute for drugs in producing surgical anesthesia and since the time of Esdaille it has been used repeatedly for this purpose. It has also been used successfully in obstetrics<sup>84</sup> and undoubtedly would be used much more if there were not such a misapprehensive, fearful attitude towards it. It has been used successfully in the treatment of many functional disorders such as hysterical paralysis, amnesia<sup>96</sup>, anesthesia<sup>85, 86, 87, 88, 83</sup> and

gastric neurosis<sup>95</sup>. It has also been used in the treatment of alcoholics<sup>89</sup> and narcotic drug addictions as well as for amenorrhea of functional origin, neurogenic skin lesions<sup>90, 91, 92</sup>, warts, stammering<sup>93, 94</sup>, and some types of mental depression. It is a definite aid in accelerating the healing in organic conditions by placing the patient in a comfortable and pleasant mental state.

In the field of psychological medicine, however, hypnosis offers a unique approach to many mental problems and difficulties. Its value lies in the fact that it allows the physician to approach directly the subconsciousness of the person with its disturbing conflicts. It often serves as a gateway past his resistances and allows indirect approaches to many difficulties which otherwise could not be attacked. Further, induced states of dissociation can be established, exploratory measures developed and vital information obtained which otherwise would be inaccessible both to the patient and to the therapist. Also of paramount importance is the fact that the hypnotised patient is in a receptive state for psychotherapy. The difficulty in getting patients to accept therapeutic suggestions directly constitutes the greatest obstacle in psychotherapy. Hypnosis renders the subject receptive. Consequently by means of hypnotism it is possible to implant therapeutic ideas upon the "subconscious" and to have them take effect when endless numbers of suggestions given in the waking state would be given no heed or even actually resisted. Thus the patient accepts hypnotic suggestions and acts upon them without conscious awareness and without building defense reactions. In so doing he allows them to become a valid part of his mental patterns, all the more so since, fundamentally, if not immediately, he does desire aid against his conflicts. By this means he can be given new mental equipment wherewith to deal with his difficulties, a new equipment which does not have to pass the protective scrutiny of his "consciousness". At the same time dissociated experiences and amnesic material are rendered available for reassociation and reorganization. Nevertheless, as with many therapeutic agencies in medicine, it should not be looked upon as a panacea nor is it to be discarded because it has definite limitations. On the contrary, it is a valuable addition to the medical armamentarium, most particularly to that of the psychiatrist.

Perhaps the most fertile and productive application of hypnotism is in the sphere of experimental psychology. More and more laboratories are becoming interested in the peculiar and significant problems which hypnosis renders available for study. This rapidly increasing interest in experimental hypnotism both abroad and in America may be taken as an indication of a growing realization of the fruitfulness of hypnosis as a field of scientific research. It constitutes almost virgin territory for psychological investigations and it appears to offer a good approach to an understanding of many mental mechanisms which have hitherto defied comprehension.

As regards anesthesia there can be no doubt whatever that the anesthetics of the present day are much more certain in their action than hypnosis. No one would dream of replacing them. But there are cases of dangerous organic defects in which hypnotism might be preferable; or both, anesthetics and hypnotism might be tried together. It is well to remember, also, that persons who have been hypnotized before, will, afterwards, make good subjects and can be used for the induction of anesthesia, should a surgical operation ever become necessary.

Just one more observation before I conclude. When we label certain phenomena as mesmeric, hypnotic or due to suggestion, we are really playing with words. The fundamental process by which mind influences mind and the mind influences bodily states and functions, is still wrapped up in mystery. No patient however extraordinary would carry such conviction as you would gain by your own experiments on suitable subjects.

376 Redfern Avenue

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## Post-Operative Atelectasis\*

HAROLD F. BISHOP, M.D., Resident Anesthetist\*\*

Hartford Hospital, Hartford, Connecticut

The hazard of a post-operative pulmonary complication confronts the patient undergoing a laparotomy. Many of the difficulties encountered in the early days of modern surgery have now been overcome, yet it does not seem that the same concentrated effort of everyone associated with the operative patient has yet been effectively directed toward minimizing or avoiding pulmonary complications. It is probably a fact that the incidence of these complications has not been greatly reduced during the past quarter of a century. Within recent years, attention has been focused upon that type of pulmonary complication which has been variously termed pneumonitis, broncho-pneumonia, collapse, or atelectasis. It is this broad group of complications that we propose to discuss with you.

The term atelectasis is derived from two Greek words meaning imperfect expansion and was apparently first used by Jorg<sup>15</sup> in 1835, although this condition had been described by various German writers<sup>24</sup> as early as 1811. A satisfactory and complete description did not appear in the literature until 1850, when Gairdner<sup>10</sup>, in a series of papers, differentiated it from pneumonic consolidation and laid down the principle that it is in most cases secondary to bronchial obstruction. This first authoritative description is in complete agreement with the most widely accepted views of today.

There is still no unanimity of opinion as to the cause or causes responsible for the production of atelectasis, but many etiological factors have been clearly described. In reviewing the literature, there is to be found an overwhelming array of evidence, both experimental and clinical, favoring the theory of bronchial obstruction as a prime factor in its production. This theory is born out by the experimental works of Mendelssohn<sup>20</sup>, Traube<sup>26</sup>, and Lichtheim<sup>18</sup>, and following the turn of the century, by MacCallum<sup>19</sup>,

and Andrus<sup>1</sup>. In 1928, Coryllos and Birnbaum<sup>7</sup> reported the production of atelectasis in the dog by plugging the bronchus with a rubber balloon. Lee, Ravdin, Tucker, and Pendergrass<sup>17</sup> produced massive atelectasis in the dog by obstructing the bronchus with bronchial secretion removed from a patient with massive atelectasis. Elliot and Dingley<sup>9</sup>, in 1914, were the first to stress the importance of obstructing bronchial secretion in post-operative atelectasis. More convincing evidence was given by Hearn and Clerf<sup>12</sup>, bronchoscopists from Jackson's Clinic, who were able to cure atelectasis clinically by removing the tenacious secretion or plug through the bronchoscope.

The fate of the pent-up air in the obstructed lung has been an interesting problem associated with the bronchial-obstruction theory of the production of atelectasis. It is the generally accepted view that the air thus blocked off is absorbed by the blood-stream rather than allowed to escape by ball-valve action on the part of the bronchial plug. Lichtheim<sup>18</sup>, in 1879, found that pure oxygen in the obstructed lung of rabbits was absorbed in forty-five minutes, carbon-dioxide in ten to thirty minutes, and nitrogen in twenty-four hours. Coryllos<sup>7</sup>, found that when the lung of the dog was filled with oxygen and the bronchus plugged, atelectasis developed in one-half hour, whereas it required twelve and one-half hours if the lung were filled with air.

William Pasteur<sup>22, 23</sup>, the first to emphasize the importance of post-operative atelectasis, never accepted the theory of bronchial obstruction. He believed that paralysis of the diaphragm and inability of the respiratory muscles to carry on their function properly were the important etiologic factors. Many other observers have reported cases who were suffering from various degrees of atelectasis, and yet, at post-mortem, no secretion of any nature could be

\*Read during the combined meeting of the American Society of Anesthetists and the Section on Anesthesia of the Connecticut State Medical Society, at Groton, Conn., June 2nd, 1938.

\*\*Since July 1st, 1938, Senior Resident Anesthetist at Westchester County Hospital, Valhalla, N. Y.



found in the tracheo-bronchial tree. Bradford<sup>2</sup> argues rather convincingly against bronchial obstruction on the basis of his experience in war-time.

There are some who hold that atelectasis may conceivably develop secondary to altered nerve reflexes although no worker has been able to produce it experimentally. Bradford<sup>2</sup> and Soltau<sup>25</sup>, believe that a reflex paralysis of the muscles of respiration might produce atelectasis. Reflex action by way of the vagus might conceivably cause a collapse.

Jones and Burford<sup>14</sup> have advanced recently a theory to account for a type of massive atelectasis which they have observed following the use of cyclopropane. They evolve the theory that the lack of a slowly absorbable, inert gas in mixtures of cyclopropane and oxygen may be an important factor in the development of atelectasis and the routine use of helium is suggested. We, at Hartford Hospital, have regarded so highly this new approach to the problem that we are now using helium almost routinely as a diluent with cyclopropane. However, this new approach does not throw any new light upon the occurrence of atelectasis following spinal and local anesthesia.

In its most typical form, atelectasis comes on within twenty-four or thirty-six hours after operation; only infrequently is the onset delayed beyond the evening of the first day after operation. The onset may be quite abrupt with the temperature and the pulse rate rising rapidly; or more often, there is a summation of symptoms developing over a period of a few hours. The rise in pulse rate is usually commensurate with that of the temperature, although not always. The subjective symptoms vary. Difficulty in breathing is usually present and may be very distressing. Occasionally cyanosis is evident. Pain in the thorax is not a prominent feature, but a sense of oppression or retro-sternal discomfort is quite constant. There is most often a peculiar and rather typical cough. The toxic appearance observed in a patient suffering from a true pneumonia is usually missing.

In examination of the chest, signs, if present, are usually on the same side as that of the abdominal operation. According to Brock<sup>3</sup>, in his analysis of eighty-five complications, this was almost invariably true. Typically, heart, trachea, and mediastinum are displaced to the

affected side, which is deficient in movement. The percussion note is most often impaired to some degree. Auscultation may reveal a variety of findings. Physical signs may be very misleading, particularly if the atelectasis is bilateral. The cardinal signs of collapse roentgenographically are elevation of the diaphragm on the involved side, displacement of the heart, mediastinum and trachea to the affected side, contraction of the ribs and reduction of pulmonary volume.

Atelectasis may appear in a variety of forms. It is now generally held that massive collapse and the various forms of atelectases are different degrees of the same disease. Any stage of patchy or lobular, partial or complete atelectasis of part of a lobe, a whole lobe, whole lung or of both lungs, may occur. The term massive collapse is reserved for those cases in which the greater part of one lung is involved. Its characteristic clinical picture with clear-cut physical signs is easily recognized. The less well defined but larger group of complications, which may be termed lobar or lobular atelectasis, is more difficult to classify. The lesion in this group, which is not true pneumonia, in the medical sense, (since it runs a much shorter and less toxic course) has been referred to as pneumonitis by Whipple<sup>27</sup>, and as embolic pneumonia by Cutlers. Coryllos<sup>7</sup> has maintained that the steps in the development of post-operative pneumonia are first, bronchitis, obstruction, atelectasis, and then pneumonia developing in the collapsed area. The smallest degree of atelectasis to take place post-operatively, as shown by X-ray, has been termed by Muller, Overholt, and Pendergrass<sup>21</sup>, "Pulmonary hypo-ventilation".

Most cases of post-operative atelectasis get well either spontaneously or as a result of quite simple treatment. Why then place any undue importance upon it? Its early detection is of importance in order to give an accurate prognosis, secondly, in order to outline an efficient treatment, which varies considerably from that of a pneumonic patient. In the third place, there is to be kept in mind its relation as a precursor to more serious conditions such as broncho-pneumonia, empyema, and pulmonary abscess.

It may be stated that no one factor is responsible for atelectasis, but rather a combina-

tion of several which work together in different degrees of importance at different times, giving rise to corresponding differences in the clinical picture and pathological condition. There are various pre-operative, operative, and post-operative factors, which either alone, or in combination with bronchial obstruction, aid the production of atelectasis or play a part in initiating the process.

**Pre-Operative:** The length of time and position in which the patient is kept in bed has been found to have a bearing on the incidence of pulmonary complications. Pulmonary complications of this type are apparently significantly higher in men than women. King's<sup>16</sup> series indicate that its incidence in males is twice that among females. Few will deny the extreme importance of a pre-existing respiratory infection in this regard, whether it is acute, sub-acute or in a chronic stage, although King in his large series at the Massachusetts General Hospital found pre-existing infection in only fourteen per cent of his patients. Pulmonary lesions or cardiovascular disease, which may reduce the vital capacity markedly, would favor pulmonary complications and atelectasis. Pre-operative medication may affect the respiratory rate, cough reflex, bronchial secretion, and intrapleural pressure,—all of which may be important factors abetting the production of atelectasis. The condition of a patient's mouth, particularly the condition of his teeth, is too often overlooked in the pre-operative check-up. The time of year does not seem to play a very important part. Brunn and Brill, in studying their series, failed to detect any significant seasonal variation.

**Operative:** The patient's position of the table and length of operating time may be factors favoring collapse. The importance of the type and site of operation is well-known. The surgical procedure itself may markedly disturb pulmonary function. An increase in pulmonary complications is expected where the presence of sepsis is an additional operative factor. The part played by the entrance of air into the peritoneal cavity and its collection under the diaphragm is not well understood. Many observers agree that this pulmonary complication occurs frequently under all types of anesthetics. It is unfortunate that the avoidance of an inhalation anesthetic does not carry with it increased free-

dom from respiratory complications.

**Post-Operative:** That the post-operative position of the patient may be a factor is generally agreed as well as is the necessity for frequent postural changes. The important effects in this regard are two in number: first, the effect of a patient's position on freedom of respiration and vital capacity, second, the effect of the patient's position on intra-bronchial secretion. The matter of position has been stressed recently at the Mayo Clinic<sup>11</sup>, where the Trendelenburg has been used post-operatively to increase drainage of the pulmonary tract as well as to expedite venous return from the legs. Burford<sup>5</sup> favors the lateral position as a better one for drainage, freedom for coughing and vomiting. In the post-operative treatment, the effect of drugs, particularly morphine, on the respiratory mechanism may be mentioned. Distention of the stomach or intestines limits respiratory movement. Constricting bandages or splints constitute factors which are occasionally over-looked. The use of inhalations of carbon-dioxide as advanced by Henderson<sup>13</sup> has been advocated with considerable enthusiasm. There is a variance of opinion as to the efficacy of this practice as a preventative treatment. It would seem at the present time that its use, at least routinely, is not justified.

Once a diagnosis of atelectasis is established treatment should be directed towards facilitating bronchial drainage. Possibly the greatest factor in obtaining free expectoration is active effort on the part of the patient accompanied by postural changes and deep breathing exercises. The patient can often be induced to cough, if he is given encouragement together with support of the operative area, or if he is stimulated by inhalation of carbondioxide. The removal of constricting bandages has been mentioned. It is possible to give a patient adequate relief of pain following operation without seriously affecting the cough reflex or causing a state of depressed respiration, by the use of medication in properly timed dosages. The results from bronchoscopic aspiration are at times striking in selected cases. We cannot agree that this is such a hazardous ordeal for selected post-operative patients where a skilled bronchoscopist is available.

We have had a personal interest in this subject during the past year and have had the opportunity to observe the majority of patients developing pulmonary complications during that



time on the surgical wards at the Hartford Hospital. We have gathered information from a series of cases comprising one hundred patients who have developed post-operatively a pulmonary complication of this type under discussion. These one hundred complications were collected from the records of patients who have undergone operation within the past five years (1933-1937 inclusive). An attempt to correlate the incidence of pulmonary complications with the number of operations performed during this five year period has not been made. During the final year (1937) of this survey, anesthesia was varied to conform with the surgical procedure and the operative risk exhibited by the patient. Anesthetic individualization replaced the time-honored routine use of gas-oxygen-ether for every patient and operation. After examining the charts of these one-hundred patients, it is evident that there has been a reduction in the severity of the post-operative pulmonary complications observed during the past year. We do not feel that there has been a marked change in incidence. In both the five year and the one year groups, we have attempted to tabulate the various etiological factors in a statistical fashion and to correlate clinical, X-ray and post-mortem data.

In the series of 100 pulmonary complications there were 63 males, and 37 females. Ages ranged from 3 years to 85 years. The average age was 47 years. There was evidence of pre-operative respiratory pathology in 36. The length of operation ranged from 15 minutes to 3½ hours. The average length of operation was 1 hour and 36 minutes. Post-operative X-rays of the chest were taken on 57 patients. No significant seasonal variation was noted in this group. Thirty complications occurred during the winter, 28 during the spring months, 21 each in summer and fall. More complications (13) occurred in December than during any other month. The least number of complications (3) was recorded for January. In regard to the site of the operative incision, 92 per cent of the operations were abdominal, 8 per cent were non-abdominal. Thirty-nine of the 92 abdominal operations were in the upper abdomen, 53 were in the lower abdomen. Twenty-three complications followed procedures upon the gall bladder, 22 followed appendectomies, 12 followed operations on the stomach, and 9 followed repair of hernias. Sepsis, was a factor in 12 of the 22

appendectomies.

Inhalation anesthesia was administered for 85 of the 100 operations, spinal was used for 12, and local in 3. Ether was the agent used in a great majority of the inhalation anesthetics. Tribromethanol was combined with an inhalant agent in 7. An endotracheal catheter was introduced in 13. Cyclopropane was used for only 16 of the operations. The mortality rate among this group of 100 pulmonary complications over a 5 year period was 40 per cent. This rate ranged from 50 per cent in 1934 to 33 per cent in 1937. Thirty-five of the deaths occurred within the first 4 post-operative days. The onset of the complication occurred on the first post-operative day in 65 per cent.

There are some who feel that there is an increasing incidence of atelectasis. Others feel that the increase of recognized atelectasis has been balanced by an increased consciousness of the prevalence of this complication. Burford's contention in regard to the type of diluent gas is an approach to this problem which cannot be overlooked at the present time by those of us who are primarily interested in anesthesia. Collection of cases over a period of years, where varying diluent gases are used, will need to continue before thoroughly approved opinion can be formulated.

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## Some Experiences Gained in a Series of Five Hundred Epidural Blocks\*

BRIAN C. SWORD, M.D., New Haven, Conn., and  
A. E. HARRINGTON, M.D., Milford, Conn.

The spinal epidural space is between the dural sac and the periosteal lining of the vertebral foramina and extends the entire length of the spinal canal, that is, from the foramen magnum above to the coccyx below. It begins above where the thick cranial dura splits at the foramen magnum into its two functionally different layers; the external layer lines the spinal canal as the periosteum and thick fibrous coverings of the ligaments of the spine. In the region of the coccyx this becomes continuous with the periosteum of this bone. The antero-posterior longitudinal ligaments are thick parts of this layer. The inner layer becomes the true spinal dura and covers the cord as a tubular sac. Between these two layers lies the epidural space which contains areolar tissue, venous plexuses, and semi-liquid fat. The lower termination of this space is at the sacral hiatus. Its widest point is at the second lumbar vertebra where it occupies one-half the diameter of the spinal canal. Because of this it becomes the most accessible point of entrance. The subarachnoid space is continuous above with that of the brain, while the epidural space is closed at the foramen magnum because of the dura fusing with the periosteum at this point.

As the anterior or motor nerves leave the spinal canal they are covered by a dural sheath which is much thicker than that covering the posterior root nerves. Both these nerves unite at the foramen of exit to form a spinal nerve. The difference in thickness of the dural sheath covering these two nerves has been offered as an explanation for novocain having a selectivity for sensory nerves. A solution when injected into this space infiltrates the semi-liquid fat surrounding the dura and spreads both upward and downward. At each inter-vertebral foramen some of the solution leaves the space along the perineural lymphatics surrounding the nerve trunks. In

this manner massive nerve block is accomplished with an agent that is entirely outside the spinal canal having no contacts with the central nervous system. The path followed by solutions injected into the epidural space was definitely proven by Forrestier by injecting lipiodol and then taking serial radiograms of the spinal column. The opaque substance was seen to infiltrate the epidural space and pass into the intervertebral foramina. At the end of several hours he observed that the entire amount of lipiodol injected was outside the vertebral column. Occasionally failures occur with this type of anesthesia, possibly due to the limited size of some foramina of exit.

The term epidural is synonymous, anatomically, with the following terms: extradural, peridural and caudal. Caudal peridural anesthesia has been used in a number of our leading clinics for the past fifteen or twenty years, however, its usefulness has been limited. The availability of the remaining portion of the canal was not appreciated until years later.

In reviewing the literature we find that a young Spanish surgeon, Fidel Pages by name, in 1920 discovered that the epidural space could be entered through the lumbar and thoracic segments thus producing anesthesia from the clavicle to the tips of the toes. Unfortunately the career of this enterprising young man was shortened by an untimely death, and it was not until some ten years later that Prof. A. M. Dogliotti, presenting a paper before the Piedmontese society of surgery meeting at Milan, again called the attention of the medical profession to this valuable procedure. In 1931 Dogliotti came to this country and presented a paper and, in addition, demonstrated this procedure in some of our leading clinics. The technique he described was not especially successful in the

\*Paper read before the Section of Anesthesia at the Clinical Congress held in New Haven, Conn., September 20, 1938.

hands of most of us in this country. However, Harger of Chicago, in 1934, reported a series of one hundred fifty cases employing this technique with very satisfactory results. In 1935, C. B. Odom, while visiting Dr. Gutierrez, surgeon-in-chief in one of the leading hospitals of Buenos Aires, witnessed a demonstration of epidural anesthesia. This technique seemed more practical than the Dogliotti technique. Heldt and Maloney, in 1927, while studying the case of post-spinal headache discovered that the epidural space exhibits negative pressure. Applying this fact, Gutierrez made a lumbar puncture needle of small caliber with a concave base. This concavity he filled with sterile water, and when inserting the needle into the spine he observed that when the tip entered the extradural space the water would disappear. The sucking of water inward he termed "the sign of the drop". Realizing its significance he decided to do a series of surgical cases employing this technique to produce anesthesia.

Not having a lumbar puncture needle of this type we have employed an ordinary glass adap-

tor such as is used in clysis sets. This is an advantage over the Gutierrez needle because these simple articles are found in every operating room and special equipment is not required.

The interest of one of us in this method of anesthesia was first aroused while visiting at the Charity Hospital in New Orleans the latter part of December, 1935. The excellent results reported by my host, Charles Odom, resident surgeon of this institution, and his successful demonstrations, led me to pursue this study at Grace Hospital in New Haven. The first few cases were administered in the latter part of January, 1936, and we are continuing its use at the present time.

In the charts that are now to follow, we have taken, wherever possible, the blood pressure reported by the family physician as well as that reported by the interne on admission, as the approximate normal for those patients being hospitalized. Employing these readings as the approximate normal, we have formulated our conclusions on basis of the following tables:

TABLE I

Operations	No.	Age	M.	F.	Operating Time	Anesthetic Time		Surgeons	Anesthesia	
						Deep	Superf.		Comp.	Incomp.
Herniorrhaphies	90	35			40'				96%	4%
a. Direct	13		13	0		90'	120'	7		
b. Indirect	41		41	0						
c. Femoral	17		13	4						
d. Umbilical	4		3	1						
e. Ventral	15		11	4						
Cholecystectomies	70	43	15	55	45'	75'	95'	4	85%	15%
Cholecystectomies & Appendectomies	10	48	4	6	60'	75'	95'	4	85%	15%
Appendectomies	42	28	20	22	25'	90'	120'	11	100%	0%
Hysterectomies	64	41			40'	90'	120'	6	95%	5%
a. Supravaginal	52		0	52						
b. Vaginal	12		0	12						
Hemorrhoidectomies	24	33	15	9	30'	120'		8	100%	0%
Fistulas Fissures										
Gastroenterostomies	10	47	10	0	50'	75'	90'	2	85%	15%
Partial Gastrectomies	8	50	4	4	60'	75'	90'	2	85%	15%
Peptic Ulcers	17	35	17	0	50'	75'	90'	5	85%	15%
Intest. Resections	10	58	8	2	75'	90'	120'	4	90%	10%
Splenectomies	1	20	0	1	35'	75'	90'	1	100%	0%
Colostomies	3	56	0	3	30'	75'	90'	3	100%	0%
Thoracoplasty	1	35	1	0	50'	75'	90'	1	100%	0%
Prostatectomies	20	65	20	0	40'	90'	120'	5	98%	2%
Transurethral Resect.	30	72	30	0	45'	120'		2	98%	2%
Caesarean Section	14	26	0	14	40'	75'	90'	3	100%	0%



TABLE II

Operations	No.	Age	M.	Operating		Anesthetic Time		Surgeons	Anesthesia	
				F.	Time	Deep	Superf		Comp.	Incomp.
Nephropexies	4	37	1	3	40'	75'	50'	2	100%	0%
Nephrectomies	7	46	4	3	50'	75'	90'	3	100%	0%
Nephrolithotomies	3	50	3	0	60'	75'	90'	1	100%	0%
Orthopedic Cases	24		15	0			150'	2	90%	10%
a. Thigh amputation	4									
b. Hip fixation	3									
c. Bone cysts	2									
d. Suture of patella	3									
e. Removal of semi-lunar cartilage	6									
f. Removal of accessory patella	1									
g. Arthroplasty of left knee	1									
h. Trisacral fusion	1									
i. Steinman Pin through Femur	3									
Vaginal Repairs	41	38	0	41	40'	90'	120'	10	95%	5%
a. D&C	12									
b. Perineorrhaphies	14									
c. Rectoceles and Cystoceles	10									
d. Interpositions	3									
e. Post. Resections	2									
Undescended Testicles										
Torek Operation	2	16	2	0	30'	75'	90'	1	100%	0%
Orchidectomies	5	63	5	0	30'	75'	90'	1	100%	0%
Parturition	27	20-39	0	27	60'	90'	120'	6	95%	5%

TABLE III

Types of Delivery	
Spontaneous	6
Low Forceps	8
Low Forceps with Episiotomies	9
Mid Forceps	3
Twins with Piper's Forceps	1

TABLE IV

Agent	Dosage	Pre-Op. Medication Agent	Time Given	Systolic B. P.	Respirations
I. Novocain Sol. 2%	800-1000 mgs. in 45 c.c. Saline	Ms gr $\frac{1}{4}$ , Scop. gr 1/150 Nembutal gr $1\frac{1}{2}$	60' 90'	10% Fall	No change
II. Novocain Sol. 2% & Adrenalin 1/1000	800-1000 mgs. in 45 c.c. Saline 5-8 ms	Ms gr $\frac{1}{4}$ , Scop. gr 1/150 Nembutal gr $1\frac{1}{2}$	60' 90'	10% Rise	No change
		Ms gr $\frac{1}{4}$ , Scop. gr 1/150 Nembutal gr $1\frac{1}{2}$	60' 30'	15% Fall	S. Depr.
III. Novocain Sol. 2% & Adrenalin 1/1000 & Pantocaine	600 mgs in 45 c.c. Saline 5-8 ms 100 mgs	Ms gr $\frac{1}{4}$ , Scop. gr 1/150 Nembutal gr $1\frac{1}{2}$	60' 30'	15% Fall	Sl. Depr.
IV. Novocaine Sol. 2% & Cobefrin 1/2000	800-1000 mgs in 45 c.c. Saline	Ms gr $\frac{1}{4}$ , Scop. gr 1/150 Nembutal gr $1\frac{1}{2}$	60' 90'	No change	No change
		Ms gr $\frac{1}{4}$ , Scop. gr 1/150 Nembutal gr $1\frac{1}{2}$	60' 30'	10-15% Fall	S. Depr.

From Table one, it can be seen that we have endeavored to try as many cases as possible. In column two the age is the approximate while the same might be said for columns five and six, namely the operating and anesthetic time. There were 317 females and 183 males. The oldest case was 87, while the youngest was 12. There were thirty cases over 65 years of age while seven were under 16. In the last column where we have tried to differentiate between success and failure, the criteria employed in determining this were as follows: 1—Anesthesia satisfactory from the surgeon's standpoint. 2—No supplementary agents needed. 3—Patient's condition at the end of operation satisfactory. We have considered the anesthetic unsatisfactory, 1—When anesthesia was absent or incomplete after a wait of twenty minutes, 2—where duration was not satisfactory and supplementary anesthesia had to be employed. There were in all fifteen different surgeons and obstetricians and their assistants.

In Table four it will be observed that we have employed forty to fifty cc of a 2% solution, made up with saline which is the equivalent of 800-1000 mgs of novocain. In some of the cases adrenalin 1/1000, 5 to 8 min. was added to the solution, while in others cobefrin 1/2000 was employed. The adrenalin was added to the solution for the purpose of delaying the absorption time thereby increasing the duration of anesthesia. In ten cases where adrenalin was added, we observed what we thought to be clinically a moderate to severe adrenalin reaction as evidenced by the following symptoms: 1, Marked increase in pulse rate; 2, sharp rise in systolic blood pressure; 3, severe headache; 4, after a period of from twenty to thirty minutes an equally rapid decline in systolic blood pressure with the pulse remaining rapid. It will be observed in column four that when preliminary medication was administered sixty minutes and thirty minutes respectively preoperatively as shown in column three, there was a definite fall in systolic blood pressure previous to the block, and this was increased when the anesthetic was superimposed on an evident circulatory and respiratory depression. It is interesting to note that when novocain-pantocaine solution with adrenalin was used there was more circulatory depression than with the novocaine solution alone. While it is not recorded on the chart the

two deaths that we had in this series of cases occurred while we were employing novocain-pantocaine solutions. The cases were extremely poor risks involving surgery of the kidneys, and we are not willing to admit that their demise was entirely due to anesthesia.

In all cases, a barbituric acid derivative has been administered at the hour of sleep the night before operation and you will observe in column four from the table that the morning administration has been given either 30 or 90 minutes preoperatively. Our purpose in administering the barbituric acids has been three-fold: 1—sodium amytal was given at the hour of sleep to insure a good night's rest; 2—the preoperative dose was given to produce a certain amount of hypnosis in order that we might minimize psychic trauma as much as possible; 3—the barbiturates protect against the toxic and convulsive effects of novocaine.

The armamentarium consists of the following: Four sterile towels, clips, antiseptic agent for skin preparation, gauze sponges, lumbar puncture needle size 22, a skin needle, two syringes, one 2cc and the other 10cc, one glass adaptor and 45 cc of intravenous saline, as well as the anesthetic agent. For economical reasons we have employed solutions of novocain 20% strength in 5 cc ampules for preparation of the weaker solution to be injected.

**Technique of operation:** The patient is placed on the operating table in the routine position for subarachnoid block. The shoulders and buttocks are brought to the edge of the table in as near a straight line as possible, the thigh flexed upon the abdomen and the head flexed upon the chest. Experience has taught us that better results are obtained if the patient is placed on the side on which the operation is to be performed. The back is exposed, the patient's skin is prepared with an antiseptic agent and then is carefully draped. The desirable location for the insertion of the needle is now carefully palpated and a wheal is raised. The agent employed in making the wheal is dependent somewhat upon the effects of preliminary medication, that is, if there has been a 5 to 15 point decrease in the systolic blood pressure from that which we have considered to be normal we have added 25 to 50 mg. of ephedrin sulphate to the 1% solution of novocain, which has been used in making the wheal. In cases showing no



preliminary decrease in blood pressure novocain one per cent, 1 cc, without ephedrin has been injected to produce the wheal. Where ephedrin was employed a slight delay was necessarily enforced in order that the vaso-constriction action of this drug might take effect. After this delay the lumbar puncture needle is inserted through the wheal into the intraspinal ligaments, the stylet is withdrawn, and the glass pipette partly filled with the saline is attached to the needle. With great care the needle is now pushed gently inward, watching at all times for any movement of the meniscus in the glass adaptor. As the tip of the needle enters the extradural space the solution in the glass adaptor is rapidly or slowly sucked into the needle. As this determines the desired location the adaptor is now removed, and if there is no visible evidence of fluid or blood coming from the needle, the 10 cc syringe is filled with 2% novocain and attached to the lumbar puncture needle. Before injecting any of the solution the plunger is withdrawn as a safety procedure to insure against placing any of the anesthetic agent either into the subarachnoid space or into a punctured blood vessel. If neither blood nor spinal fluid are present on aspiration, the 10 cc are slowly injected into the epidural space. Before injecting the second 10 cc a period of from four to five minutes is allowed to elapse in order that we may again protect the patient against any error in technique. If unwittingly we have placed some of the first 10 cc solution into the subarachnoid space, motor paralysis will be present. When recognized this is not an objectionable feature as 10 cc of a 2% solution is within safe limits. In one case this was not recognized and somewhere between 30 and 40 cc were injected into the spinal canal. This patient responded to modern treatment for respiratory paralysis and left the hospital on the third day. She was in for a cholecystectomy but this was not done. In the absence of motor paralysis following the introduction of the first 10 cc the remaining 30 to 40 cc is slowly administered. At the completion of the block the

patient is turned over on his back and prepared for surgery. The deliberate delay in doing the block has been for two reasons; One, to delay the absorption time of the large amount of solution that has been employed and secondly, to allow greater time for the anesthesia to take place. At the end of twenty minutes, in the majority of cases, we are able to go ahead with the operation. Occasionally, however, this has not been sufficient time and we have had to either wait longer or give some supplementary form of anesthesia.

Post-operatively, we have been impressed with the condition of the poor surgical risks. The relatively few cases that have to be catheterized post-operatively seems to us to be of great importance. The absence of headache, backache, and profuse sweating are other desirable features which we have observed. In comparison with spinal, we feel that it has a number of decided advantages. The absence of the above mentioned symptoms, also that the patient can be immediately placed in any desired position on return to bed.

### Conclusion

From the many types of cases we have used in trying this form of anesthesia, we believe it has a definite place in the armamentarium of the Anesthetist. It is a procedure that can be used in most types of surgical cases below the diaphragm. Old age is not a contra-indication. In the majority of cases adequate sedation can be produced by the proper timing of the preliminary medication. Too great a fall in blood pressure occurs if morphine, scopolamine, and nembutal are given in the doses suggested within the hour preceding the operation. The main objection to this type of anesthesia seems to be the delay it causes in a busy operating room. The few cases in which we have entirely failed to obtain anesthesia can be attributed to one of two causes, either faulty technique in administration or anatomical abnormalities of the spinal

*(Concluded on Page 577)*

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# Methods of Anesthesia for Operations About the Head and Neck\*

R. CHARLES ADAMS, M.D.

Section on Anesthesia  
The Mayo Clinic, Rochester, Minnesota

The choice of the anesthetic for operations about the head and neck has become broader in recent years and the anesthetist is given the opportunity to exercise finer judgment in the choice of the anesthetic than heretofore. The comparatively complicated anatomy of this region results in a variety of pathologic conditions, more and more of which are being treated surgically. Some of our newer methods of anesthesia have facilitated the progress of surgery in this region. Choosing the most suitable anesthetic is not always easy and one must attempt to foresee the fullest extent of the proposed operative procedure and all the possible complications which may arise. In other words, the anesthetic chosen must be adequate for the most radical surgical procedure which may be used. I wish first to discuss in a broad sense the available agents and methods, following which their application to the various types of surgery in this region will be considered.

## Intratracheal anesthesia

Intratracheal anesthesia by the McGill method has been an adjunct to inhalation anesthesia particularly useful in surgical procedures about the head and neck for two main reasons: first, because an adequate airway is provided despite operations in and around the upper respiratory passages and second because it removes the anesthetist and his equipment from the region of the surgical field. Thus the surgeon is able to perform his work with greater ease and precision, there is less danger of contaminating the operative field, the patient may be placed in any position and postoperative complications are probably less frequent owing to the unobstructed airway and the lessened amount of anesthetic agents required. The McGill type of intratracheal tube has proved the most satisfactory.

Whether the nasal or oral route is chosen depends usually on the location of the operation. For plastic operations above the upper lip the

oral route is preferable while for those below the upper lip or for intra-oral operations nasal intubation is employed.

The technic of intratracheal intubation need not be considered in detail here but something may be said of some of the unusual difficulties which are encountered. When ankylosis of the jaw is present and the tube must be passed by the nasal route it is well to have available tubes of varying curvatures. In the presence of anesthesia of adequate depth blind nasal intubation can usually be accomplished with one of the tubes, provided the nasal passages and throat have been previously sprayed with a solution of 10 per cent cocaine or metycaine or 5 per cent butyn. Intratracheal tubes having an accentuated curve are also useful for oral intubation with the aid of a laryngoscope in certain patients in whom it is difficult to visualize the glottis. In certain instances oral intubation using a divided airway has proved successful when other methods cannot be applied.

Adequate preliminary medication with morphine, atropine and pentobarbital sodium is important in this type of surgery and intubation may be accomplished with the use of less of the anesthetic agents than ordinarily would be required. Although the use of sterile intratracheal catheters and sterile vaseline as a lubricant for them has not been generally considered essential, I feel it may have definite value in lessening post-operative pulmonary complications. Should these arise the use of such a sterile technic helps to relieve the anesthetist and the anesthesia from blame for them.

In the average patient anesthesia is induced with nitrous oxide, oxygen and ether or cyclopropane prior to intubation. Defects about the face frequently make it necessary to alter this procedure. I have often found it advantageous to induce anesthesia with pentothal sodium administered intravenously, continuing the anes-

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thesia to the proper level with ether by the drop method, after which the intratracheal tube is inserted and connected to the gas machine. For most types of operations about the head and neck this method is preferable to the use of the facial gas mask, as the anesthetist is removed from the operative field and the less bulky connectors may be covered with sterile drapes.

Many types of adaptors are available of either rubber, metal or a combination of each but the essential features are that the connecting tubes be of as large a diameter as possible and as short as possible. In addition they should be of a type not too bulky and easy to drape and isolate from the operative field. The connecting pieces should fit snugly to prevent leakage and the whole set-up should be securely fastened, so that changing the position of the head will not result in kinking the tubes or loosening the connections during the course of the operation.

After intubation a moist or vaseline gauze pack is placed in the mouth and packed well down around the tube into the posterior pharynx. This is removed before the patient leaves the operating room even if the intratracheal tube is left in as an airway. Otherwise, when the tube is removed the remaining pack may cause complete obstruction to respiration. The pack in the throat aids in the prevention of leakage of gases around the tube, absorbs secretions which collect and helps to prevent aspiration of blood from the upper respiratory passages into the trachea. Intratracheal catheters having inflatable cuffs are useful in preventing the escape of gases but a pack in the throat, carefully applied, is almost as efficient.

Care should be exercised to avoid undue trauma during the intubation to lesions which may be present in the oral or nasal passages. The carbon dioxide absorption technic is used for most operations and as profound relaxation is rarely essential for operations in the region of the head and neck comparatively small amounts of anesthetic agents are required, even for operations of long duration. As a result postoperative pulmonary complications are rare.

Owing to the frequency with which surgical diathermy is employed the use of nitrous oxide and ether is preferable to that of cyclopropane. Anesthesia with nitrous oxide, oxygen and ether has proved both adequate and satisfactory for operations about the head and neck. When the

use of surgical diathermy is contemplated, the ether bottle is removed from the gas machine, the breathing bag is emptied and the machine and its connections are flushed out with the nitrous oxide to remove the excess of ether vapor. The anesthesia is then continued with nitrous oxide and oxygen only. By such management there is only slight danger of fire or explosion. The advantages of the intratracheal method of anesthesia in this type of surgery are many and where the operative procedure is long and complicated it is a safe and controllable method.

### **Intravenous anesthesia**

Intravenous anesthesia with pentothal sodium has many uses for operations about the head and neck, either as the sole anesthetic or as an adjunct to local and regional methods. Its use is chiefly indicated for operations of short or moderate duration about the surface of the head and neck, particularly if the electrocautery is to be employed. As examples one might cite such procedures as the application of small skin grafts, electrocoagulation of simple lesions, benign or malignant, insertion of radium or radon seeds, injections of boiling water for lymphedema, the drainage of abscesses due to actinomycosis or other causes and simple plastic operations in those patients who do not tolerate local anesthesia well. Where a very short operation is anticipated, preliminary medication may be withheld but for longer procedures morphine, atropine and pentobarbital sodium as premedicant agents will tend to produce a smoother anesthesia with the use of less of the intravenous anesthetic.

The intravenous method is not as suitable for intranasal and intra-oral surgery, especially in the presence of obstruction or potential obstruction to respiration. Furthermore, it is difficult to obliterate the nasal and pharyngeal reflexes if one uses doses well within the limit of safety. Where the operation may involve bleeding into the posterior pharynx, the danger of aspiration is present and in such instances intratracheal anesthesia with a pack in the throat is a much safer procedure.

Either a 2.5 or 5 per cent solution of pentothal sodium may be employed using fractional doses according to Lundy's technic of intermittent injection. The intravenous method is safe provided that one is always assured of adequate respiratory exchange but one must never depress

the respirations to the point of arrest. An unobstructed airway is a prime essential and during operations about the head and neck it is not always practical to employ a cotton or paper "butterfly" over the mouth and nose of the patient as a guide to unobstructed respiration. Consequently the respiratory movements of the thorax and abdomen must be closely observed in conjunction with the color, blood pressure and pulse. If necessary for the maintenance of a free airway the patient's jaw must be supported under the sterile drapes by the person at the patient's head or, if this is not practical, one of the surgical assistants should perform this function.

It is rarely necessary to insert an artificial airway. I do not consider it necessary to use a so-called respiratory stimulant such as coramine in the solution of pentothal sodium. The use of this is reserved for those patients who, on completion of the anesthetic, show undue respiratory depression or for those whose more prompt waking is considered advisable. Facilities for administering oxygen and carbon dioxide and for performing intratracheal intubation should always be at hand when intravenous anesthetics are being administered.

Intravenous anesthesia may be conveniently used as a supplement to local and regional methods in patients who are nervous and apprehensive. When used under such circumstances very little of the intravenous anesthetic is required and the patient is usually awake soon after the completion of the operation.

The intravenous method is not as safe in children less than ten years of age as in older patients. If the patient is not awake on return to his room he should be watched until he responds. The fact that intravenous anesthesia rarely causes nausea or vomiting makes it particularly advantageous for operations about the face and neck as contamination of the operative field is minimized.

#### **Regional anesthesia**

There are many operations about the head and neck where regional or local anesthesia is preferable to an inhalation or an intravenous anesthetic. In patients suffering from pulmonary conditions such as bronchitis or bronchiectasis it will be better to avoid an inhalation anesthetic. For operations about the neck and larynx, deep and superficial cervical block with suitable infil-

tration will provide adequate anesthesia for the average patient. This method is most applicable to operations on the larynx as in these operations it is essential that the cough reflex be maintained. The most suitable local anesthetic agents are procaine and metycaine. A 1 per cent solution of either agent is employed for blocking nerve trunks and a 0.5 per cent solution for purposes of infiltration. As a vasoconstricting agent either epinephrine or corbasil (cobefrin) is suitable. The vasoconstricting agent is employed in both the 1 per cent and the 0.5 per cent solutions of the local anesthetic agent.

During the remainder of this article the types of anesthesia most suitable for the various types of surgical procedure will be treated on a comparative basis and the indications for regional anesthesia and the types of regional procedure best suited to the various operations will be elaborated.

#### **Plastic surgery**

Smaller plastic operations about the face and neck may be performed under infiltration anesthesia but where large skin flaps are to be elevated from the scalp or neck, a procedure involving the denuding of large areas, intratracheal anesthesia becomes the method of choice. The same applies to large skin grafts to these areas. Intratracheal anesthesia is preferable for plastic operations on the external ear or for operations in which it is necessary to place the head in such positions that the airway might become obstructed. Extensive operations on the nose such as cartilage implants and reconstructive procedures may be performed under local anesthesia but owing to the possibility of bleeding into the nasal passages intratracheal anesthesia by the oral route is safer, should complications arise. This applies also to extensive intranasal operations.

#### **Ophthalmic surgery**

In surgery of the eye intravenous anesthesia has become increasingly useful, particularly for enucleations, removal of orbital tumors, needling, operations on the lacrymal apparatus and plastic operations on the eyelids. The operation for cataract may be performed under intravenous anesthesia in patients who tolerate local anesthesia poorly. For this operation an even depth of anesthesia must be constantly maintained to prevent movement of the eyeball. The method is not as suitable as intratracheal anesthesia



for muscle operations, especially in children. Sneezing is a complication which occasionally occurs when intravenous anesthesia is used for surgery of the eye. One should not attempt to deepen the anesthesia too quickly in order to obliterate this reflex or too deep an anesthesia may result. If the surgeon will delay the beginning of the operation until the anesthesia is of sufficient depth further recurrences of the sneezing seldom occur.

#### **Intra-oral and pharyngeal surgery**

For operations within the mouth and about the posterior pharynx intratracheal anesthesia is the safest and most reliable method. In this group one might mention operations on the antrum such as the fulguration of tumors, the removal of malignant tumors of the tongue and the repair of cleft palates in adults. Ether by the Junker method is still employed with satisfaction for the repair of harelip and cleft palate in babies. Insufflation of ether with oxygen using an intratracheal tube of small caliber according to the method of Ayre provides a smooth, light anesthesia using minimal amounts of ether. In this method the intratracheal tube is connected by a T piece to a short rubber tube open to the air at its distal end. Ether vapor and oxygen are blown into the side arm of the T piece and at the same time inhalation and exhalation may take place through the open end of the breathing tube. Operations on the mandible for the removal of tumors, resections of the mandible and similar operations are usually prolonged and are best performed under intratracheal anesthesia.

#### **Dental Surgery**

Although most dental operations are performed under local anesthesia both intravenous and intratracheal anesthesia have a place in dental surgery when the local method is contraindicated. Intravenous anesthesia is useful for short operations and extractions lasting up to about fifteen minutes. In these instances it is preferable to withhold preliminary medication with the exception of atropine. If this is done the patient wakes more quickly than when morphine and pentobarbital sodium are employed and is able to expectorate the accumulated blood and mucus. Before induction a mouth prop should be placed between the patient's teeth. This method is desirable in nervous and apprehensive patients and in those instances where an inflammable inhalation anesthetic is undesir-

able. When the operative procedure will require only a few minutes the patient is usually fully awake before leaving the operating room. However, although these patients may appear perfectly normal they should not be allowed to return home unattended. A slight "hangover" effect may persist which may result in accidental injury to the patient and liability on the part of the physician. Intravenous anesthetics should be administered with the patient in the recumbent position and never in the sitting or semi-reclining position. The same attention to the maintenance of a free airway is necessary and facilities for administering oxygen and carbon dioxide should be available. If a gauze pack is placed in the throat to absorb the blood which accumulates, it should not be placed so far back in the throat that the airway is encroached on.

Intratracheal anesthesia employing nitrous oxide and ether or cyclopropane is indicated in dental surgery where the operation is to be extensive and when more than the usual difficulties are anticipated. The usual pre-operative medication is administered and when anesthesia has been fully induced the intratracheal tube is passed through a nostril into the trachea either by blind intubation or with the aid of a laryngoscope if necessary. When this is accomplished the tube is connected to the gas machine and the connectors covered with sterile drapes. A pack is placed in the throat as previously described.

#### **Thyroid surgery**

Various methods of anesthesia may be used with satisfaction in thyroid surgery but where the surgeon desires the patient's co-operation during the operation, regional anesthesia is to be preferred. In this way the patient may be made to strain in order that any potentially bleeding vessels may be seen and ligated before closing the wound. The patient is also able to cough and speak so that any damage to the nerves will be apparent. Regional anesthesia for thyroid surgery is not complicated. A bilateral superficial cervical block is performed by injecting 10 c.c. of a 1 per cent solution of procaine or metycaine in the subcutaneous tissue over the sternomastoid muscle. Owing to the untoward effects produced by the use of epinephrine in patients with goiter, particularly of the exophthalmic type, it should be omitted from the

solution of local anesthetic or corbasil (cobefrin) (I,2-dihydroxyphenyl - 4 - propanolamine) should be substituted. This vasoconstrictor, similar in action to epinephrine, does not tend to produce the untoward effects, such as pallor, tachycardia and syncope, caused by epinephrine in this type of patient. The line of incision is then infiltrated using 60 to 80 c.c. of a 0.5 per cent solution of the local anesthetic agent. If the patient experiences undue pain or discomfort during the course of the operation a little nitrous oxide and oxygen may be administered at this time. As the resultant anesthesia is light throughout, the patient wakes promptly on removal of the face mask and is able to cough, strain and speak. Where the gland is large, nodular and substernal in type and a difficult operation is contemplated, it is well to perform a bilateral deep cervical block in addition to the aforementioned procedure. Certain patients are usually nervous and apprehensive of both the regional procedure and the operation and in those whose preliminary medication is not effective, the intravenous administration of a solution of pentobarbital sodium prior to beginning the block will efficiently quiet the patient. A 5 per cent solution of the drug is used (7.5 grains [0.5 gm.] of pentobarbital sodium dissolved in 10 c.c. of triple distilled water) the injection being made slowly and intermittently until the patient is lightly asleep but may be aroused. The patient so treated will not object strenuously to the local injection and this drowsiness will persist throughout most of the operation and result in a patient who is both quiet and co-operative.

Intratracheal anesthesia may also be employed in thyroid surgery in patients hypersensitive to local anesthetic agents and in those patients whose airway is in danger of obstruction owing to pressure of the growth on the trachea. By this method an adequate airway is maintained despite the position of the patient's head or the operation itself. A face mask, if used over the tube, will not be in the surgeon's way; or the intratracheal tube may be connected to the gas machine. Deep anesthesia is unnecessary. Intravenous anesthesia with pentothal sodium may be used as a supplement to local anesthesia in thyroid surgery.

#### **Operations on the larynx and trachea**

When operating on the larynx by the anterior approach it is necessary that the cough reflex be

present and therefore regional anesthesia becomes the method of choice. Infiltration anesthesia only is quite sufficient for the performance of tracheotomy. When a thyrotomy is performed, the extent of the region anesthetized will depend on whether the surgeon anticipates doing a laryngectomy after the thyrotomy. If the surgeon intends only to open the larynx for purposes of examination or biopsy or to remove a lesion by surgical diathermy, a bilateral superficial cervical block with infiltration of the line of incision will be adequate in the average patient. In this way the patient is spared the discomfort of a more extensive block and the toxic effects of additional amounts of the local anesthetic solution. A superior laryngeal block is often performed as well but it is frequently necessary for the surgeon to infiltrate the region of the lesion after the thyroid cartilage has been opened.

For laryngectomy a complete cervical block is performed. Adequate and effective premedication of the patient is most important in this type of surgery to allay the patient's fears and to alleviate the discomfort which accompanies the operation. Pentobarbital sodium in a dose of 1.5 to 3 grains (0.1 to 0.2 gm.) is administered orally the night before the operation. If the patient is awake the morning of the operation, an additional 1.5 grain (0.1 gm.) of pentobarbital sodium is administered early, and one hour before the operation 1/6 grain (0.01 gm.) of morphine and 1/150 grain (0.0004 gm.) of atropine are administered by hypodermic injection. If this course of preliminary medication has not made the patient thoroughly drowsy by the time of the operation, he should be brought to this stage by an intravenous injection of a solution of pentobarbital sodium. This procedure I have found very effective in producing a quiet patient for the performance of the block and throughout most of the operation, and I have come to use it in a high percentage of these cases.

It does not seem pertinent to go into detail in regard to the technic of cervical block and therefore only the essentials will be indicated. For the deep cervical block the lateral approach is employed using a warm solution of 1 per cent procaine or metycaine. As metycaine is somewhat more potent than procaine and produces a more rapidly oncoming anesthesia of longer duration, I prefer it for cervical block in a robust



patient. Either epinephrine or corbasil (cobe-frin) may be employed as the vasoconstrictor in both the 1 per cent and the 0.5 per cent solutions. Ten cubic centimeters of the 1 per cent solution of the local anesthetic agent is injected near the tip of the transverse process of each of the second, third and fourth cervical vertebrae to block the corresponding cervical nerves. A bilateral superficial cervical block is then performed. For the bilateral superior laryngeal block 5 c.c. of a 1 per cent solution of the anesthetic agent is employed on each side. The needle is introduced in a posterior direction in the interval between the hyoid bone and the thyroid cartilage. The solution is injected at a depth of about 1 cm. or after the needle has passed the first resistance. Provided the patient has a tracheotomy opening, this injection may be made without danger but if a tracheotomy opening is not present the injection, if made too deeply, may infiltrate the submucous layer of the larynx. The edematous region thus formed may cause a complete respiratory obstruction, especially if a partial obstruction is already present. After these procedures the line of incision is widely infiltrated from the point of the chin to the jugular notch of the sternum with a cold 0.5 per cent solution of the local anesthetic agent. During the operation the surgeon may find it necessary to infiltrate the tissue between the larynx and the esophagus in order to desensitize twigs from the vagus nerves. If the patient is unduly restless during the operation, 1/8 to 1/6 grain (0.008 to 0.0 gm.) of morphine administered intravenously will bring relief.

A similar type of block to that described above is performed for a submental and submaxillary gland dissection but in this instance the infiltration is modified to suit the line of incision and infiltration is made along the line of the jaws. In addition the floor of the mouth is injected in several places using 5 c.c. of an 0.5 per cent solution of the anesthetic agent.

For ligation of the external carotid artery a unilateral deep and superficial cervical block is sufficient and the same procedure gives adequate anesthesia for the excision of an esophageal diverticulum. A cyst of the thyroglossal duct may be excised using a bilateral block of this type but the infiltration must be carried deep enough to desensitize the base of the tongue. A unilateral superficial and deep cervical block

gives sufficient anesthesia for the operation for interruption of the phrenic nerve.

Many surgeons prefer intratracheal anesthesia for extensive block dissections of the neck and similar operations. If for any reason the regional method is contraindicated intratracheal anesthesia proves perfectly satisfactory unless the operation is such that the cough reflex must be present or the patient's co-operation is required.

Although in co-operative patients small operative procedures on the vocal cords and adjacent structures may be performed transorally under topical application of local anesthetic agents extensive interventions necessitate deep general anesthesia. Owing to the frequent use of surgical diathermy for the removal of such lesions nitrous oxide and ether give the safest type of anesthesia. The anesthesia is induced with nitrous oxide and oxygen, and ether is added from the gas machine. Even with the use of various types of artificial airways anesthesia in many patients is difficult to induce, owing to the varying degrees of obstruction present. By spraying the nasal passages and throat with a solution of 10 per cent cocaine or metycaine or 5 per cent butyn before the anesthesia is induced, the reflexes about the pharynx and glottis are partially obliterated and thus a smooth, uninterrupted anesthesia is more easily maintained. If the carbon dioxide absorption type of gas machine is being used, it is converted to deliver a continuous flow of gases under moderate pressure and during this conversion the anesthesia is further deepened by the administration of ether by the drop method. When full surgical anesthesia has been attained, an intrapharyngeal tube is inserted into a nostril of the patient and connected to the delivery tube of the gas machine. The patient may then be suspended to visualize the glottis and a continuous flow of nitrous oxide and oxygen is maintained over the ether in the ether bottle on the machine. This is continued, varying the amount of ether to maintain surgical anesthesia. If the use of surgical diathermy is necessary the ether bottle is removed, the excess of ether vapor in the apparatus is eliminated and for the rest of the operation, anesthesia may be carried along on nitrous oxide and oxygen. If the reflexes about the glottis begin to reappear before the operation is completed, additional ether by the drop method may be required.

# The Present Status of Pentothal Sodium As an Anesthetic Agent\*

MARIO GAROFALO, M.D.

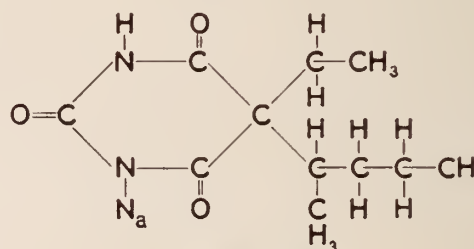
Resident Anesthetist, Hartford Hospital

The purpose of this paper is two-fold: To present a brief review of the literature on pentothal as an intravenous anesthetic, and to present statistics and observations on 1,045 cases at the Hartford Hospital, with a summary of interesting features that presented themselves.

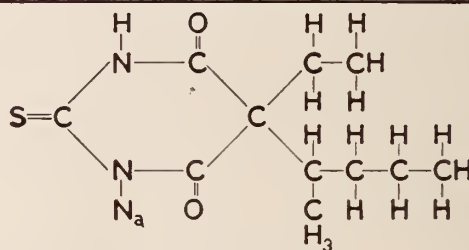
Various drugs have been used intravenously to produce anesthesia since Ore of Lyons first attempted it in 1872 with chloral hydrate. Others were introduced as follows: hedonal in 1905, ether shortly after, paraldehyde in 1913, soninifene in 1924, ipral in 1925, pernocton in 1927 and avertin in 1929. Most of these drugs were proven to be unsatisfactory when administered intravenously and they have been discarded. It has only been since 1929, when Zervas and his associates used sodium amytal<sup>22</sup>, that real progress in intravenous anesthesia has been made. Nembutal was introduced in 1930, evipal in 1932, pentothal in 1934, eunarcon in 1935, narconumal in 1936, and very recently Cullen and Rovenstine<sup>23</sup> have reported on sodium thio-ethylamyl. Thus far, sodium ethyl (1-methylbutyl) thiobarbituric acid (pentothal) is considered superior to the others.

Pentothal is closely related to sodium iso-amylethyl barbituric acid (sodium amytal) and sodium ethyl (1-methylbutyl) barbituric acid (nembutal). (Fig. 1.) Sodium amytal and nembutal have the same empirical formula but differ only in the position of one of the methyl groups. Pentothal is the sulphur homologue of nembutal. With sodium amytal and nembutal, induction and maintenance of anesthesia are satisfactory but recovery is prolonged and is too frequently accompanied by restlessness. They are now chiefly used as basal sedatives. Evipal is comparable to pentothal in action, but it is from 30-50% less potent. The difference between the two may be summarized as follows: The advantages of pentothal are — induction of

anesthesia is smoother, quicker and more certain; recovery is more rapid; pentothal rarely produces twitchings and jactitations which are occasionally seen with evipal; decrease in blood pressure is less with pentothal. The disadvantages are — pentothal is more depressing to the respiratory center; when pentothal is used, a few patients complain of a sulphurous taste or smell experienced during the immediate post-operative



NEMBUTAL



PENTOTHAL

Fig. 1

period. Thus, there is a difference in the effects produced by various barbiturates when used intravenously, and because of this, Lundy<sup>22</sup> divides them into three groups based on duration of effect: 1, prolonged effect, e.g., sodium amytal; 2, sustained effect, e.g., nembutal; 3, transient effect, e.g., evipal, and pentothal. Jarman<sup>21</sup> divides them into two classes: the heavy, e.g., sodium amytal, and nembutal; and the light, e.g., evipal and pentothal.

\*Read before the Section on Anesthesia of the Clinical Congress at New Haven, Conn., September 20, 1935.



Pentothal is a lemon yellow powder having a sulphurous odor and bitter taste. It is readily soluble in water and is strongly alkaline<sup>12</sup>. The ten per cent solution has a pH of 10.6 and forms precipitates with acids and salts of silver<sup>28</sup>. It may be obtained in the hygroscopic or amorphous forms both being stable in the absence of moisture and atmospheric carbon dioxide. The sulphur in the compound seems to make possible its quick destruction and accounts for the difference in action between nembutal and pentothal.

Pentothal is capable of producing respiratory depression. The degree of depression depends upon the amount of drug in the circulation. This effect is negligible when therapeutic amounts are given. There is little change in rate and rhythm but some diminution in depth. If the rate of intermittent injection is well regulated, relatively large doses may be given over a prolonged period without respiratory embarrassment. However, if injection is too rapid, respirations become shallow and cyanosis may occur. The heart is affected only secondarily as a result of anoxemia associated with respiratory inefficiency. Sica<sup>35</sup> reports that electrocardiographic records fail to show any marked deleterious effect on the myocardium or conductive systems. The blood pressure decreases slightly after the initial injection but soon returns to its previous value. The pulse is accelerated and the pupils dilate but both rapidly return to normal. Vasodilatation occurs and, from 10 to 15 minutes after injection, the temperature of the extremities tends to rise several degrees unless some peripheral vascular disease is present. The skin remains warm and dry.

The drug is rapidly detoxicated by the liver and is probably completely destroyed in the liver as it is not excreted as such in the urine. The products of decomposition are excreted by the kidneys. Tovell and Thompson<sup>36</sup> found no significant changes in the rate of urinary secretion or in the value for blood urea. The concentration of sugar in the blood is raised appreciably. Horsley<sup>16</sup> reports that there is a decrease in the pressure of cerebrospinal fluid to approximately one half its normal level and that this is constant and indicative of full narcosis. Cautious overdose produces a more profound decrease of the pressure of cerebrospinal fluid. During recovery, the pressure rises slowly but fails to reach the original value until the return

of consciousness.

Pratt, Tatum, Hathaway and Waters<sup>31</sup> administered pentothal to dogs, rabbits, and rats, and found it to be a respiratory depressant with relatively little untoward action on the heart. The minimal lethal intravenous dose in rabbits was 35 mg. per kg. body weight, 30-35 mg. per kg. in dogs. In rats, 80 mg. per kg. was the minimal lethal intraperitoneal dose. Repeated injections with 80% of the minimal lethal dose at intervals of one week for one month did not change its duration of action or effectiveness. Reynolds and Veal<sup>32</sup> have demonstrated that minimal doses given slowly to cats or dogs do not arrest respiration or lower blood pressure but given rapidly may cause cessation of respiration without measurable effect on blood pressure. In their experience, however, repeated minimal doses may suddenly produce cardiac arrhythmia and a decrease in blood pressure. Gruber<sup>11</sup> states that the respiratory center is affected before the cardiovascular system, and because of this, artificial respiration can be used effectively. In pregnant dogs, the barbiturates pass freely from mother to fetus through the placenta and then back again into mother's circulation.

It is desirable to have a patient brought to the operating room with his bladder and rectum empty and it is preferable that his stomach also be empty. If the patient has partaken of food within four hours before operation, precautions should be taken to place the patient in the Trendelenberg position and to have a suction ready for use. Preliminary medication is of value because it reduces the amount of pentothal that is necessary for the operation and because it assists in the production of a smooth and rapid induction. For the average adult, morphine sulphate, 1/6 grain (0.01 gm.), with atropine sulphate, 1/150 grain (0.0004 gm.) may be administered subcutaneously one hour prior to the time of operation. Nembutal in doses of 1½ to 3 grains (0.1 to 0.2 gms.) may be administered orally at the same time. Some British anesthesiasts, <sup>21, 27</sup> use omnopon combined with scopolamine and they omit the barbiturate on the ground that there is danger of cumulative action.

Pentothal was first used by Lundy<sup>21</sup> and Tovell at the Mayo Clinic in 1934 and they used a 10% solution, but due to the fact that when it is accidentally injected into the tissues, local inflammation and sloughing may occur, a 5% solution

was later used. This is prepared by dissolving 1 gm. of the powder with 20 cc. of sterile distilled water. This is aspirated into a 20 cc. syringe having preferably an eccentric tip to which is attached a 22 gauge short-beveled needle  $1\frac{1}{4}$  inches long. The patient is in the recumbent position; it is the safest for administration because respiratory difficulties, undue decreases in blood pressure and difficulties in venipuncture, are minimized. The veins commonly used are the median basilic and the median cephalic. At times, it is convenient to use the dorsal metacarpal veins. When using a vein at the ankle, it is important to know of the presence or absence of varicosities. It is preferable not to use a varicose vein as the drug is likely to stagnate, producing a slow induction of anesthesia and possibly thrombosis or damage to the vein. There is also the danger of absorbing all of the dose at one time<sup>38</sup>. However, if one of these veins must be used, great care must be employed in massaging the part frequently from the ankle to the knee to speed the passage of the drug into the circulation. When the veins are small, it is advisable to wrap the hand, wrist, and forearm in hot moist packs for 20 minutes. A tourniquet is applied above the site chosen for injection and is tightened to engorge the veins but not sufficiently to impede the arterial pulse. When the patient is asked to close the hand tightly, the veins are readily visible.

As an aid to the determination of the character of the patient's respiration, Lundy<sup>25</sup> suggests the use of a cotton butterfly which is a wisp of cotton fastened to the patient's upper lip by a strip of adhesive. A competent attendant should be at hand to support the patient's jaw, to maintain an adequate airway, and to administer oxygen and carbon dioxide, should it be necessary.

Pentothal is administered by fractional or intermittent injection rather than by a single rapid injection of a dose based upon a number of milligrams per kilograms of body weight. Because of the short period of induction and the brief duration of anesthesia, immediate pre-operative preparations such as placing the patient in the desired position, preparation of the operative field and of the site of injection should be carried out before the needle is inserted.

Three to four cubic centimeters of a 5% solution are injected in approximately 15 sec., and

during this interval the patient is encouraged to talk or count. Induction is smooth, pleasant and rapid. Anesthesia is usually established in from 20 to 30 seconds. Onset of anesthesia is denoted by slurring speech, depressed respirations, a sigh or a yawn, nystagmus, small pupils and loss of conjunctival reflexes. The pharyngeal reflex is not abolished. It is important that the oral pharynx be free of foreign material.

Subsequent injections should be based upon the patient's reaction, i.e., upon the effects produced. Since relaxation develops more slowly than unconsciousness, it is important to discontinue administration for at least 30 seconds after the initial injection. Thereafter, from 1 to 2 cc. may be injected at intervals as indicated. Indications for further injection are slight movement of the extremities, phonation, reflex movement due to painful stimuli, or an increase in respiratory excursion.

The best single guide for depth of anesthesia is respiration<sup>19</sup>. During light anesthesia, the respiratory excursions are full; in deep anesthesia, the respirations become shallow. The degree of relaxation of the jaw constitutes a good guide for depth of anesthesia<sup>27</sup>. All signs are subject to swift changes associated with the rapid destruction of the drug. Because of its rapid destruction, it closely parallels the action of inhalational anesthetics, and when pentothal is given in intermittent doses, minute to minute controllability is possible.

Recovery is usually not associated with restlessness or hallucinations. Headaches and vomiting occur rarely. The duration of the recovery period depends upon the preliminary medication that has been given and upon the amount of pentothal that was administered. Recovery is more rapid than with other barbiturates now in clinical use. The patient awakens as from a refreshing sleep. A short period of inebriation may be manifested. Following this period, the patient's mentality clears quite readily. An ambulatory patient should be required to rest for from 1 to 2 hours after operation and upon leaving the hospital, he should be attended by some responsible person.

The cardinal signs of overdosage are imperceptible respiration and later cessation of respiration accompanied by the development of cyanosis. The pulse remains strong and steady until asphyxia occurs. Various analeptics may be



used to combat respiratory depression: Coramine, 5 cc., may be administered intravenously and the same dose may be repeated in from 5 to 10 minutes. Metrazol, 1½-2 cc., may be given intravenously and may be repeated in 5 minutes if the desired effect is not produced. Picrotoxin may be injected intravenously. Alpha Lobelin, gr. 3/20 - 3/10, may be administered subcutaneously or intravenously. The administration of oxygen under slight positive pressure offers the best line of treatment. Jarman<sup>21</sup> maintains that coramine is the most reliable drug to use for collapse. Alexander<sup>1</sup> believes that picrotoxin is the drug of first choice, then metrazol. Burstein and Rovenstine<sup>3</sup> report that the response following metrazol is more satisfactory than from picrotoxin. Others believe that the use of artificial respiration and the administration of carbon dioxide, 5%, and oxygen, 95%, with gentle rhythmic compression on the bag is the method of choice in combating over-dosage. The administration of pentothal should be discontinued, an airway should be established, oxygen and carbon dioxide should be given, intubation should be done if necessary, and respiratory stimulants should be injected.

There are some patients who display certain less serious reactions such as tremor, sneezing, coughing, and hiccupping. These reactions are undesirable but usually they can be eliminated by temporarily withholding further injection of pentothal. When atropine has been used as preliminary medication, these manifestations are seldom seen.

Pentothal is especially indicated for selected patients undergoing operative procedures lasting from 15 to 30 minutes, and in which muscular relaxation is not essential. Its uses may be summarized as follows: It may be used for a quick and pleasant induction preliminary to the administration of an inhalational anesthetic. It may be given in the patient's room. Pentothal is useful for the immediate control of convulsions due to the administration of cocaine, novocaine, strychnine, tetanus, and in the presence of eclampsia<sup>19</sup>. If elimination of the agent responsible for the convulsions tends to be prolonged, it is advisable to resort later to a longer acting barbiturate such as nembutal or sodium amytal. Convulsions during the administration of inhalational anesthetics occur rather rarely. The administration of pentothal will control

them and provide opportunity for subsequent methods of treatment. Horsley<sup>15</sup> finds it a valuable drug in facilitating the investigation of morbid mentality. The patient is in bed in a quiet darkened room. A 2.5% solution is injected not faster than 1cc. per min. As the patient becomes drowsy, sleep is prevented by engaging his attention. He becomes as susceptible to suggestion as when under hypnosis. Forgotten incidents are recalled, latent tendencies are magnified and secrets are revealed. Pentothal may be used in the same manner in medico-legal practice to interrogate certain individuals. Horsley<sup>17</sup> reports its use in childbirth especially for psychotic patients: 2 cc. of a 10% solution are given at the onset of severe contractions, 2 cc. more after 1 minute, then 1cc. as required. It is useful in procedures where a cautery is to be used. This drug is useful as an aid in evaluating the prognosis of patients suffering from Raynaud's disease<sup>19</sup> or essential hypertension<sup>2</sup>. It causes a rise in the temperature of the extremities to a maximal point. If, in a case of suspected Raynaud's disease, the temperature of the finger nails fails to reach 35°C, one may conclude that some peripheral vascular disease exists and that section of the cervico-thoracic sympathetic nerves will not completely relieve the condition. In cases of essential hypertension, preoperative prediction values can be obtained following the administration of pentothal. The patient is hospitalized for 24 hours. 15 cc. of a 5% solution are injected in about 15 minutes. One lead of a thermocouple is placed on the skin of the toes of each foot. The temperature of the toes and the blood pressure are recorded every two minutes. The maximal temperature is usually reached in about 15 minutes. The lowest point to which the blood pressure falls with a dose sufficient to raise the temperature of the extremities to a maximum corresponds fairly well in most cases with the level of blood pressure which will obtain following neurosurgical intervention.

Pentothal is contra-indicated in the following conditions. Children under 12 years of age do not usually tolerate a barbiturate intravenously because of the susceptibility to respiratory depression. They have small air passages and it is difficult to maintain a patent airway. Moreover, venupuncture is more difficult in children because of their small veins. Patients with respira-

tory embarrassment due to cardiac decompensation, bronchiectasis, advanced pulmonary tuberculosis<sup>19</sup>, asthma or emphysema warrant the choice of an alternative type of anesthetic agent. When tumors of the neck encroach upon the lumen of the glottis or trachea, pentothal is contra-indicated. When inflammatory conditions of the neck are present, because there is a tendency to produce edema of the glottis, pentothal should not be employed. Pentothal should also be avoided in patients in whom rales at the pulmonary bases may be heard. Evidence of gross hepatic disease contra-indicate the use of pentothal because such patients may be unable to detoxicate it. Severe toxemia eliminates the possibility of using pentothal safely because of the likelihood of hepatic insufficiency. Patients with nephritic damage may be given pentothal, but extreme care in its administration should be employed and large doses should be avoided. Mallinson<sup>27</sup> reports that delayed excretion must be considered a possibility in spite of the fact that Tovell and Thompson report that little disturbance in renal function was noted in their series of cases following the use of pentothal. It is inadvisable to use this drug in the presence of low blood pressure since pentothal may cause a further decrease. It should not be used in the presence of severe anemia, debility, or shock. It is usually not satisfactory for bronchoscopies and esophagoscopies unless a local anesthetic has been applied. Most authors do not advocate its use for intra-abdominal operations because it produces only fair and transient relaxation.

Dr. Tovell undertook reorganization of the department of anesthesia at the Hartford Hospital in October, 1936. Before his arrival, intravenous anesthesia was employed in 41 cases. From October 1, 1936 to March 1, 1938 pentothal has been used in 2251 cases. Freshly prepared solution in 5% concentration has been employed. In all our cases, the patient has been in either the horizontal or Trendelenberg position. An apparatus for the administration of oxygen or oxygen and carbon dioxide is always present. If, during anesthesia, there is any evidence of respiratory embarrassment, the patient's lower jaw is raised. If an airway is necessary, a nasal airway is preferred to an oral airway because pentothal does not relax the pharynx sufficiently to permit toleration of an oral airway. If the respirations become shallow or if cyanosis is evi-

dent, the administration of pentothal is discontinued and oxygen, 100% or oxygen, 95% and carbon dioxide, 5% is immediately administered. We have not resorted to the use of coramine, metrozol, or picrotoxin. There have been no operative fatalities.

The data in the following tables is based on 1045 cases covering a period of ten months selected at random. The variety of operative procedures performed under intravenous pentothal anesthesia is indicated in Table 1. Extraction of teeth, dilatation and curettage, incision and drainage, and cystoscopy followed by X-ray comprised 807, (77%) of the cases. For dental extraction, the patient is placed in a 10 degree Trendelenberg position, thus obviating any danger of aspiration of foreign material such as blood or mucus. For gynecological procedures, the patient's lower extremities are put up in stirrups after induction of anesthesia. In patient's undergoing cystoscopic procedures and requiring the intravenous administration of 20 cubic centimeters of indigo carmine, the dye is usually injected before administering pentothal. There were 677 (64.8%) female and 368 (35.2%) male patients. Subtracting the number of gynecological cases would result in an almost even distribution of cases with regard to sex. Pentothal was administered twice to 9 patients and three times to 3 patients. No ill effects were observed from repeated administrations of pentothal. The youngest patient was 9 years old; the oldest, 86 years old. Patients between the ages of 20 and 60 comprised 71% of the total (Table 2). The duration of anesthesia in 916 (87.6%) of the cases ranged from 2 - 30 minutes. The average duration of anesthesia was 14.8 minutes (Table 3). The average amount of pentothal per anesthesia was 10.3 cubic centimeters. In only 53 cases (5%) was pentothal used in quantities exceeding 20 cubic centimeters (Table 4). The drugs used for preliminary medication were morphine and atropine, given hypodermically one hour preoperatively and nembutal given orally 1 hour preoperatively. (No pre-operative medication was given in 10.2% of the cases.) In this series 910 (86.1%) of the patients were good risks (Table 5). There were 1012 (96.85%) satisfactory results. The unsatisfactory results (Table 6) were due chiefly to the occurrence of cyanosis associated with an obstructed airway.



TABLE 1

*Types of operations**No. of cases*

Variety of operative procedures performed under intravenous pentothal anesthesia			
		Resection of sphincter	1
		Resuture of wound	1
<i>Types of operations</i>	<i>No. of cases</i>	Total	
Dental			137
Extraction of teeth	359	Eye	
	—	Enucleation	6
Total	359	Sclerotomy	5
Gynecology		Recession and resection	4
Dilatation and curettage	242	Iridectomy	2
Conization	28	Excision of cataract	2
Radium implantation	15	Discission of cornea	2
Posterior vaginal puncture	12	Excision of eyelid tumor	1
Removal of polyp	8	Total	22
Examination under anesthesia	7	Ear, Nose and Throat	
Incision and drainage of Bartholin glands	4	Bronchoscopy	3
Biopsy	3	Removal of polyp	2
Uterogram	1	Bilateral nasal antrotomy	1
Miscellaneous	8	Excision of cancer of antrum	1
	—		—
Total	328	Total	7
Surgical		Orthopedics	
Incision and drainage	105	Reduction of fractures	11
Excision	43		—
Hemorrhoidectomy	8	Total	11
Suture	7		—
Biopsy	3	Grand Total	1045
Removal of foreign body	3		
Radium implantation	2		
Amputation of finger	2		
Closure of empyema cavity	2		
Cautery	1		
Closure of ileostomy	1		
Debridement	1		
Skin graft	1		
Proctoscopy	1		
Diagnosis	1		
	—		
Total	181		
Urology			
Cystoscopy and X-ray	101		
Fulguration	13		
Dilatation	7		
Suprapubic cystotomy	6		
Removal of drain	2		
Incision and drainage	2		
Removal of calculus	1		
Dorsal slit	1		
Transurethral resection	1		
Biopsy	1		

TABLE 2

*Age Groups*

<i>Age in Years</i>	<i>No. of cases</i>
Under 15 years	7
15-20 years	59
20-30 years	216
30-40 years	210
40-50 years	185
50-60 years	136
60-70 years	69
70-80 years	23
80-90 years	6
Miscellaneous	134
	—
Total	1045
Youngest	9 years
Oldest	86 years

**TABLE 3**  
**Duration of Anesthesia**

<i>Time in minutes</i>	<i>No. of cases</i>
2-10 minutes	309
10-20 minutes	455
20-30 minutes	152
30-40 minutes	93
40-50 minutes	24
50-60 minutes	10
60-70 minutes	2
Total	1045
Average duration	14.8 minutes
Shortest duration	2.0 minutes
Longest duration	62.0 minutes

**Poor**

General Condition	3
Cardiac Debility	3
Dehydration	2
Anemia	2
High blood pressure	1
Hemiplegia	1
Shock	1
Diabetes	1
Elevated temperature	1
Pulmonary abscess	1
Miscellaneous	5

Total	21
	1045

**TABLE 4**  
**Dosage of pentothal 5% solution**

<i>Amount in cc.</i>	<i>No. of cases</i>
2-20 c.c.	992
20-30 cc.	48
30-40 cc.	5
Total	1045
Average amount	10.3 cc.
Smallest amount	2.0 cc.
Largest amount	36.0 cc.

**TABLE 5**

<i>Risk</i>	<i>Reason</i>	<i>No. of cases</i>
Good		910
Fair		
	General Condition	34
	Anemia	15
	High blood pressure	14
	Cardiac debility	13
	Tuberculosis	4
	Asthma	3
	Post pneumonia	3
	Diabetes	2
	Obesity	2
	Epilepsy	2
	Cirrhosis of liver	2
	Bronchiectasis	2
	Arthritis	2
	Sclerosis	1
	Miscellaneous	15
Total		114

**TABLE 6**

<i>Results</i>	<i>Reason</i>	<i>No. of cases</i>	<i>%</i>
Satisfactory		1012	96.8%
Not satisfactory			3.2%
	Cyanosis	13	
	Poor airway	2	
	Spasm	2	
	Rigidity	3	
	Postop. vomiting	2	
	Pallor	1	
	Excitement	1	
	Hiccough	1	
	Miscellaneous	8	
		33	
		1045	

In this review, I would like to emphasize the following points: Definite criteria should be followed in the selection of patients considered suitable for the administration of pentothal. Special care should be taken to maintain an efficient airway. It is seldom that a maximal dose of one gram should be exceeded. A gas machine should at all times be on hand and ready for use should respiratory depression occur. The drug should be administered by an anesthetist competent to deal with all situations that may occur during the administration of any general anesthetic agent. The drug has produced in this



series a surprisingly high percentage of satisfactory results. No postoperative pulmonary complications were encountered and no operative fatalities occurred.

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# The Role of Surgery in the Treatment of Heart Disease\*

H. M. MARVIN, M.D., New Haven, Conn.

I was very glad indeed that the cordial invitation to deliver this address in honor of John Wyckoff was accompanied by the suggestion that I speak upon the place of surgery in the treatment of heart disease. If at first it seems presumptuous for a medical man to discuss surgical treatment, let me remind you that almost without exception the decision for or against operations upon cardiac patients is made by the medical adviser rather than by the surgeon, and it is the internist who appraises the final results of the operation. Broadly speaking, the medical man is better qualified by training and experience to judge of the need for operation and of its results. And so, without further apology, I ask you to consider briefly with me a few of the surgical measures that have been, and some that are still being, applied to the treatment of diseases of the heart.

As one considers these various operations, it is immediately apparent that they can be divided into those upon organs or tissues distant from the heart, and those upon the heart itself. It is convenient to consider them in these two broad groups, and I shall speak first of operations upon tissues outside the heart, performed in the hope or belief that the results will prove beneficial to the heart.

## Arteriovenous Aneurysm

Perhaps the simplest example of this type of surgical treatment is the correction of the abnormal communication between artery and vein known as an arteriovenous aneurysm. As most of you know, there are many instances in which such a communication exists as the result of local disease or, more frequently, as the result of such trauma as stab wounds or gun-shot wounds. The changes in the heart and circulation following such a lesion have been studied by many observers; one of the most adequate and informing studies is that of Lewis and Drury, some fifteen years ago. They pointed out, as others

have done, that the most conspicuous changes in the circulation in a patient suffering from a fairly large arterio-venous aneurysm (such as that between the main artery and vein in a limb) are practically identical with those usually associated with free aortic regurgitation. In both conditions one finds low diastolic pressure, wide pulse pressure, water-hammer pulse, collapsing pulse, capillary pulsation, and a great increase in the normal difference between systolic pressures in the arm and the leg. Most of these changes are readily shown to be due to the leak of blood and of pressure from the arterial to the venous system, for they disappear as soon as the abnormal communication is closed by pressure or by operation. The quantity of blood leaking from a large limb artery to the corresponding vein may be very great, amounting to from one-fifth to one-half the amount ejected by the left ventricle, and this is quite comparable to the amount that regurgitates from the aorta into the left ventricle in cases of free aortic insufficiency. The heart enlarges in these cases, sometimes very considerably, but this enlargement, like the other signs just mentioned, disappears largely or wholly within weeks or a few months after successful elimination of the aneurysm.

The details of the surgical technique need not be considered in this or the operations subsequently to be discussed. Let it suffice to say that a great many patients have been successfully operated upon, with complete cure of the local condition and a restoration of the heart and circulation to their previous state.

## Hyperthyroidism

A second condition in which the heart may benefit from operations upon other organs is that known by a variety of designations, of which the best known are "hyperthyroidism", "thyrotoxicosis", "Graves' disease", "Basedow's disease", and "toxic adenoma of the thyroid gland". This is a clinical state characterized by elevation

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of the basal metabolic rate, by certain changes in the appearance and movements of the eyes, usually by enlargement of the thyroid gland, and by important disturbances referable to the voluntary and involuntary nervous systems. So far as the circulation is concerned, it is usual to find considerable acceleration of the heart rate, and auricular fibrillation occurs in a high percentage of patients whose hyperthyroidism is long continued. The velocity of the circulation and the minute-volume output of the heart are notably increased. It was formerly taught, and is still believed by many, that hyperthyroidism is an important cause of chronic heart disease — that the changes in the heart resulting from this condition are permanent and irreversible, just as in the case of those resulting from rheumatic fever — and the term “thyroid heart disease” is in wide use today. The majority of recent careful studies, however, have cast grave doubt upon the accuracy of this belief, and many authoritative observers are now of the opinion that the heart merely shares in the elevated metabolism of the whole body, and does not suffer permanent changes in its structure and function.

There is still great uncertainty as to the exact cause of this condition; despite the various designations which imply the participation of the thyroid gland, it is by no means certain that a disturbance of this gland is the primary cause. But it has been known for a great many years that so-called hyperthyroidism could be virtually cured in the majority of cases by the surgical removal of a large part of the thyroid gland — an operation known as subtotal thyroidectomy, and not to be confused with total thyroidectomy, of which I shall speak in a moment. If subtotal thyroidectomy is successfully performed, all the abnormal signs and symptoms referable to the heart usually disappear completely, although in a small percentage of patients some of the signs referable to the nervous system do not wholly disappear. This operation therefore, while it is usually performed for the relief of symptoms other than those of circulatory failure, is sometimes followed by such remarkable improvement in the heart's rhythm and function that it must be regarded as an important form of indirect surgical treatment.

I have purposely dismissed these two operations very briefly because I realize that arteriovenous aneurysms and hyperthyroidism are en-

countered so frequently that all of you have had, or soon will have, the opportunity to make personal observations upon them. Furthermore, there is at the present time no serious divergence of medical opinion upon the indications for and the results of operation in these two conditions.

#### **Total Thyroidectomy for Heart Failure**

A few years ago Blumgart and Levine, of Boston, proposed a more radical measure for the relief of the symptoms of heart failure, namely, complete removal of the thyroid gland. They were led to this proposal by two main considerations. One was the fact already mentioned and known for many years: that the reduction of the metabolic rate in many thyrotoxic patients has a highly favorable effect upon the circulation, and may restore practically to normal a patient who previously had heart failure. In the words of Levine and Blumgart: “the hearts of such patients are evidently equal to the demands of a normal metabolic rate, though not to the demands of the elevated metabolic rate of thyrotoxicosis. Because of these considerations, it occurred to us that persons with normal metabolism who suffer from congestive heart failure might show striking improvement if the metabolic rate was significantly lowered. The hearts of such persons might be unable to supply enough blood for the ordinary demands of a normal metabolic rate, but might, nevertheless, be able to supply enough blood for the lessened needs of a reduced metabolic rate.” The second consideration was based on the observation of Levine that a patient with heart failure who was thought to have masked hyperthyroidism was subjected to subtotal thyroidectomy, and showed marked clinical improvement. The subsequent examination of the removed portion of the gland, however, showed it to be perfectly normal, which suggested to Levine that total extirpation of the thyroid gland might prove helpful in patients suffering from cardiac failure, even though thyrotoxicosis played no part in its production.

The hypothesis was soon put to actual test, and in the next two years 150 or more patients with either congestive or anginal heart failure were subjected to total thyroidectomy in two Boston hospitals. The immediate results in the first few patients appeared to be so encouraging that the operation was widely regarded as an epoch-making discovery, and a few enthusiasts hailed it as the most important contribution to

the treatment of heart failure since Withering's discovery of digitalis. A long series of papers appeared from both clinics, and these are of interest today chiefly because they demonstrate the necessity of evaluating theoretical considerations only on the basis of actual results. You will search far to find a more convincing presentation of apparently sound and potent arguments than will be found in some of the papers relating to the effects of total thyroidectomy upon heart failure. I do not for one instant wish to imply that any of those interested in this procedure rested their case upon theory alone; as I stated a moment ago, the early results were highly encouraging. But like so many other hopeful therapeutic procedures, this one also proved to be bitterly disappointing as the months passed and experience accumulated. Several weeks ago Dr. Levine told me that he had recommended the operation only once in the past nineteen months. Within the past week Dr. Blumgart has been kind enough to tell me his present belief with respect to the value of the operation. He thinks it may be of distinct value in occasional patients whose heart failure is stationary or slowly progressive despite the best medical treatment, and he continues to recommend it to such patients, although less frequently than he did a year or two ago. So far as I can learn, he appears to be the only experienced observer who still considers it a valuable therapeutic procedure. To me the operation seems now chiefly of historic interest, for with very few exceptions it has been abandoned by those who formerly supported it with great enthusiasm.

### Hypertension

The next measures that I wish to consider briefly are those proposed and practised during the past three or four years for the reduction of hypertension. Before doing so, however, I should like to remind you that hypertension is now generally regarded as the most frequent cause of heart disease in this country; indeed it seems probable that in this respect it may exceed all other causes combined. The medical treatment is most unsatisfactory. While it is not, strictly speaking, within the range of our discussion, it is perhaps not irrelevant to add that hypertension is responsible for thousands of deaths each year which have as their immediate cause uremia or cerebral vascular accidents. It is also a matter of general agreement that the

cause of this condition is entirely unknown. If we keep in mind that we are confronted by a condition of extreme importance, of which the cause is unknown and the medical treatment unsatisfactory, we may be a little more charitable in our estimates of the various attempts that are being made to cure or relieve it.

I have just stated that the cause of essential hypertension is unknown. I believe this to be strictly true, but one finds the statement in numerous medical articles and texts that the cause of hypertension is constriction of the arterioles. I think we stand on safer ground if we say instead that arteriolar constriction is the earliest demonstrable change in hypertensive patients which might conceivably be the cause of the elevated blood pressure, for one has only to ask the obvious question: "What causes arteriolar constriction?" to make it clear that there must be some other factor, as yet undiscovered. There is considerable direct and indirect evidence that arteriolar constriction is general throughout the body, but there is a sharp difference of opinion as to whether or not the nervous system plays a part in this hypertonicity. As Page has indicated, most observers recognize two possibilities: one is that the hypertonicity of the arteriolar wall is caused by abnormally powerful or frequent nervous impulses affecting a normal vascular wall; the other is that the hypertonus is due to normal nervous impulses affecting a vessel wall that is abnormally responsive. The first view places the responsibility upon the nervous system; the second upon some peculiar property inherent in the vessel itself. In general, the clinical evidence favors the belief that the nervous system plays an active part, while experimental evidence on the whole favors the other view.

Among the arguments that have been advanced in support of the belief that surgical treatment may relieve hypertension may be mentioned the following: 1. There is some evidence that the increased arteriolar tonus which is an important etiologic factor in hypertension may be caused in part, at least in the earlier stages, by vasomotor stimuli which arise from cerebral centers and are transmitted to the vessels over sympathetic nervous pathways. It is therefore reasonable to interrupt these nervous impulses by severing the paths over which they travel. 2. While the adrenal glands may not be im-



portant in the etiology of hypertension, it is possible that excessive liberation of adrenalin in response to nervous or emotional factors may be responsible for the occasional sharp rises in pressure that occur not infrequently, so it is not unreasonable to decrease this secretion by denervation of the glands. 3. There is considerable experimental evidence indicating that prolonged diminution in the renal blood flow is an important factor in the etiology of hypertension; in fact, the surgeons who have reported the largest group of patients state that the results of their operations indicate that renal vasoconstriction must have been an important factor in the disease, possibly the principal etiologic factor, since relief of this vasoconstriction has been followed by a drop in blood pressure and by improvement in the renal function. 4. A fourth object of the operation is to provide a large vascular territory incapable of vasoconstriction, which will act as a safety valve; peripheral vasoconstriction, which normally elevates the general arterial pressure, will, in these circumstances, merely dilate the vessels in this denervated territory and the general blood pressure will remain consistently at a lower level. There are other arguments, but these are the chief ones, and are necessarily stated in brief and categorical form.

The operations that have been performed in the hope of realizing these admirable objectives are mainly of two types. The first consists of resection of the splanchnic nerves, which eliminates vasoconstrictor impulses from the stomach, small intestine, liver, spleen, and kidneys, and partially denervates the suprarenal glands. The procedure employed at the Mayo Clinic consists of bilateral subdiaphragmatic, extraperitoneal resection of the splanchnic nerves, the celiac ganglions, and the two upper lumbar sympathetic ganglions. An interval of about ten days elapses between the operations on the two sides. The operation as performed in Ann Arbor by Dr. Peet, and in this city by Dr. Heuer, consists of resection of the splanchnic nerves above the diaphragm and removal of the lower thoracic sympathetic ganglia (the 10th, 11th, and 12th).

Before considering the validity of the arguments just enumerated, let us inquire briefly as to the results that have been obtained. In practically all instances there is an immediate fall in systolic and diastolic pressures, without any evidence that renal function is thereby im-

paired. In the nine patients reported by Page and Heuer from this city, there was marked reduction of blood pressure in all, but it had returned to the preoperative level in all of them within six months. These authors expressed the opinion that the therapeutic results did not appear encouraging. Allen and Adson of the Mayo Clinic reported their first 44 patients last September (1937); at this time they had operated on 85 consecutive patients without a single operative death. Of the 44 patients subjected to analysis in this report, 20 are classified as poor results, 13 as fair results, and 11 as good results. In the absence of detailed case reports, one must perforce accept the classification of the authors, but it is pertinent to indicate that the blood pressure readings before and after operation are by no means comparable. The preoperative pressures were taken each hour for 24 consecutive hours with the patient at rest, and figures are given indicating the maximum, minimum, and average pressures, while the postoperative pressure is a single figure said to represent the rough average of three determinations, with no statement as to the circumstances in which these were made. Furthermore, of the 24 cases classified as fair or good results, 9 had been observed only from 2 to 5 months. And finally, an examination of the figures makes it clear that in 6 of the 13 instances of fair results the change in blood pressure was too slight to be of any significance, while in 8 of the 11 instances of good results, the postoperative pressure is either higher than the minimum preoperative pressure, or within 10 mm. of this level. I do not for one moment wish to question the judgment of these observers or their statements respecting clinical improvement; I am merely pointing out that for an operation designed to reduce blood pressure, the figures offered as proof of its success are singularly unimpressive. These authors emphasize that there may be considerable symptomatic relief even when the blood pressure is not much reduced, and state that about 70% of patients are benefitted clinically.

Apparently the largest series of patients subjected to this operation is that of Peet and his collaborators at Ann Arbor, but figures analogous to those just quoted are not available. Two years ago, when he had operated on more than 100 patients, Peet stated that 62% of them who had gone four or more months after oper-

ation showed very definite improvement and a higher percentage had relief of symptoms. About 15% were said to be cured of hypertension, after a period of observation of 6 months. He has found, as have all others experienced in this field, that renal function was not impaired, but on the contrary was improved, if the blood pressure was reduced to normal by the operation.

I think it is too soon to attempt any final appraisal of this measure; this must await further experience and the accumulation of a much larger group of patients, critically studied by a number of men. But several facts of possible importance have been emphasized by those who think the operation rests upon an insecure foundation, and I should mention several of these. First, there is no acceptable evidence that increased secretion of adrenalin is present in hypertensive patients, or has any bearing on the etiology of hypertension; it is therefore irrelevant to speak of denervation of the suprarenal glands as an important therapeutic measure. Second, there is no clear evidence that hypertension in man is of renal origin, and this view is greatly strengthened by the fact that denervation of the kidney has been accomplished in hypertensive patients without effect upon the blood pressure. The evidence indicating that essential hypertension might be of renal origin has been derived almost wholly from experiments upon dogs. In these animals marked and prolonged elevation of the arterial blood pressure may be produced by the application to the renal arteries of small clamps which can be gradually closed so as to diminish the blood supply of the organ. But those who transfer these results without hesitation and without modification to cases of human hypertension neglect to mention several pertinent facts. If constriction of the renal arterioles, due to vasomotor influences, were an important factor in the etiology of hypertension, one would expect excellent results from denervation of the kidneys. Yet this operation has been successfully performed in human cases of essential hypertension, without effect upon the blood pressure. Moreover, the entire sympathetic nervous system may be removed from dogs that have been rendered hypertensive by application of clamps to the renal arteries, and there is no effect upon the blood pressure. Indeed, the entire sympathetic nervous system may be removed first, then clamps applied to the renal arteries,

and hypertension develops as readily as in the animal with an intact nervous system. It seems clear from these observations that the results of experiments upon dogs cannot be applied too closely to essential hypertension in human beings. Third, there is steadily increasing evidence that the vasomotor tone in hypertensive patients is not increased in comparison with normals. Fourth, inasmuch as patients are selected on the basis of the same criteria and tests, and are subjected to the same operative procedure, one might logically expect greater uniformity in the results obtained if the operation rests upon a sound basis of accurate knowledge. Yet the results, as we have seen, are far from uniform; the observers at the Mayo Clinic state that one may expect complete failure in 45%, fair results in 30%, and good results in 25%.

These are theoretical arguments, and by no means all that might be adduced, and the value of the operation must ultimately be decided on the basis of actual results obtained in human patients. A final statement cannot be made as yet, but it is my own belief (which I hope may be proved erroneous) that the operation will probably be abandoned in the near future, as not yielding results sufficient to justify it.

The second type of operation performed for the reduction of hypertension consists of resection of the anterior spinal nerve roots, those selected being usually from the 6th or 7th dorsal to the 1st or 2d lumbar. This is usually done in two stages, the first consisting of laminectomy, followed after a few days by opening of the dura and section of the nerve roots. Needless to add, it is a serious and difficult procedure; far more so than the resection of splanchnic nerves, and this, unlike the previous operation, leads to certain motor changes, involving the abdominal muscles, bowels, and urinary bladder. It is sufficiently drastic so that one would not willingly recommend it to a patient unless reasonably certain that good results could be expected. Within the past several weeks, Page has reported the results of this operation performed upon 20 patients by Dr. Heuer. The best results were obtained in a group of six young people with essential hypertension, but in five of these the blood pressure had returned to the preoperative level at the end of 18 months. In the patients whose hypertension had been of longer duration, and in the cases of so-called malignant hyperten-



sion, no significant results were achieved. One of the patients died on the day of operation, one three days later, and one developed transverse myelitis and still has paralysis of the lower limbs 18 months after operation. This is not a high percentage of unfortunate results, but is nevertheless almost equal in number to the good results. Until it can be shown that the results are better than in the cases thus far reported, or a less drastic operation devised which will give results at least as good, it seems to me that one must regard this as a justifiable form of treatment only in the most desperate cases.

### Cardiolysis

More than thirty-five years ago, Brauer proposed the surgical operation that is still widely known by his name, or by the alternative and very poor term "cardiolysis". This consists essentially of the removal of several ribs, usually with the corresponding costal cartilages, from that portion of the thorax directly overlying the heart. This procedure was suggested because it was thought that as a result of certain affections or infections involving the pericardium and adjacent structures, the two layers of the pericardium became densely adherent to each other, and that firm bands of fibrous adhesions extended from the pericardium to the ribs, sternum, diaphragm, and other mediastinal tissues. It seemed reasonable to believe that if the heart was firmly anchored to surrounding structures, especially to the bony thorax, its work would be enormously increased, as the ventricles would then have to tug upon a rigid cage at each contraction. In its fully developed form it was believed that this condition often resulted in enormous hypertrophy of the heart and in congestive heart failure. Inasmuch as the severing of these dense adhesions during life might prove extremely difficult or impossible, Brauer suggested that the bony cage to which the heart was attached might be altered by removal of several ribs, after which the heart would no longer strain against an unyielding wall, but would be attached to a soft and freely movable wall composed of muscles, fat, and skin. Its work would be enormously lessened, and symptoms of heart failure might disappear.

This operation has been performed in a fairly large number of cases; ten years ago, Smith was able to collect 107 cases that had been reported in sufficient detail to permit certain conclusions.

One-third of these patients had been so far rehabilitated as to permit their return to self-supporting occupations, and a few of these to manual labor, while at least two-thirds of the group had been restored to lives of comfort and moderate physical activity. I have had the opportunity personally to observe this operation and its results in a small group of about ten patients, over a period of approximately ten years. In this group also, the results were extraordinarily gratifying in the majority, and several of them are still living active lives six or seven years afterward, even though heart failure was present before operation. All of these patients had rheumatic heart disease, but it was our belief at that time that the signs and symptoms were due in some degree to the fact that the heart was attached to the chest wall and was thereby prevented from contracting effectively. When improvement followed the removal of three or four ribs, we drew the natural, but perhaps erroneous, conclusion that the improvement was the direct result of the operation.

That distinct, and sometimes dramatic, clinical improvement does follow this operation I think there can be no serious question. But there is today grave question as to whether the removal of ribs is the cause of the improvement, and even graver doubt as to whether the heart is often or ever seriously handicapped by external adhesions of the type just described. Theoretically it seems unlikely that adhesions dense enough to anchor the heart firmly could form while the heart is actively and continuously contracting; one would expect, rather, that if adhesions formed, they would be stretched into thin tenuous threads while still growing, and that they could not possibly become strong enough to resist the contraction of a hypertrophied ventricle. But the argument in this instance does not rest upon theoretical considerations alone; it stands also upon experimental and post-mortem observations. For several years Dr. Claude Beck of Cleveland, whose experimental and clinical experience in the field of cardiac surgery is probably greater than that of any other American, has repeatedly and emphatically stated that adhesions to the heart do not produce dilatation, hypertrophy, or failure; that when adhesions are present, they are silent and incidental findings and produce no circulatory trouble whatever unless the heart is acutely

angulated or twisted. On the bases of fifteen years of constant work upon the heart or pericardium, with a record of more than a thousand experiments upon animal and human hearts, he states it as his considered belief that external adhesions produce no disturbance (except in the rare instances of acute angulation or twisting of the heart), that there may be no reason for their clinical recognition, and that there is no reason to operate for their correction. Almost precisely two years ago, Hosler and Williams presented further evidence upon this point derived from a study of the autopsy records of the University Hospitals of Cleveland for the period from 1906 to 1935. In 4400 autopsies there were 75 cases in which extensive pericardial adhesions were found, combined with intrapericardial adhesions. In 54 of these 75 cases, the heart was hypertrophied, and in every instance there was found an adequate reason for the hypertrophy in concomitant heart disease or vascular disease, such as rheumatic carditis, aortic insufficiency, etc. Almost without exception the largest hearts were found to be the seat of rheumatic pericarditis. In the remaining 21 cases, extensive pericardial adhesions were found to be associated with hearts that were either normal in size or smaller than normal, and these were entirely free from signs of cardiac or vascular disease. This would seem to indicate that adhesions are of no importance in causing enlargement of the heart. These authors point out, as many others have done previously, that extensive pleuropericardial and mediastinal adhesions are found in many cases of advanced tuberculosis, and the heart is often pulled far from its normal position, yet it is exceptional to find the heart enlarged or to encounter signs or symptoms of heart failure.

It is probably correct to state that most of those who can speak with authority based on personal experience and studies in this field are in complete or almost complete agreement with Beck's statement, but several observers of high eminence are convinced that dense external adhesions do occasionally form and may be the cause of cardiac enlargement and of heart failure. Dr. Evarts Graham of St. Louis has reported several instances in which the severing of such adhesions between heart and sternum resulted in conspicuous clinical improvement.

You have, of course, already perceived the apparent sharp discrepancy between my earlier

statement that the Brauer operation has been of great value in a large number of cases, and this later statement that external adhesions are now believed by many to be of little or no importance in causing cardiac hypertrophy or heart failure. The discrepancy, I believe, is not between the two sets of observations, which are apparently correct, but is presumably due to an erroneous interpretation of the results of the Brauer operation. In the light of more recent knowledge, it seems probable that the cardiac enlargement and heart failure in the patients subjected to this operation were due, not to increased ventricular work imposed by external adhesions, but rather to the concomitant disease of the heart muscle or valves or to coexistent hypertension. The operation of necessity accomplishes two things: it enforces a period of complete bed rest, and it gives an enlarged heart more room in which to work; it is probably the latter factor that is of importance in many cases. I believe the time has not come to discard this operation entirely, but it should be utilized with a clearer realization of its rationale and of the probable results.

#### Anginal Heart Failure

I spoke a moment ago of a neurological operation designed for the reduction of blood pressure; I turn now for a moment to another type of neurological surgery that is performed solely for its effect upon one of the cardinal symptoms of heart failure. The symptom is that extraordinary substernal squeezing pain or sense of constriction to which has been given the name angina pectoris or anginal heart failure. I shall not pause for a discussion of this symptom further than to indicate that a great deal of fascinating and important evidence has been brought forward in the past ten years relating to its etiology, and the various lines of evidence are almost wholly harmonious and corroborative, one of the other. We are apparently in position to say with a great deal of confidence that anginal pain is due, largely or wholly, to a discrepancy between the heart's expenditure of energy and its available supply of blood at that moment. Stated more simply, anginal pain arises whenever the coronary blood flow is not adequate for the work demanded of the heart; it is due to myocardial ischemia, and is strictly analogous to the well-known pain of intermittent claudication. Those of you who have not yet read the splendid papers of Lewis and his colleagues upon this



subject may confidently look forward to a happy and profitable experience. Even to those of you who have no knowledge of this form of heart failure, it must be evident that treatment, whether medical or surgical, should logically strive either to abolish the discrepancy between the demands upon the heart and its ability to meet them, or to abolish the pain which is an expression of the inadequate blood supply. The surgical procedure that I am about to discuss aims purely at the elimination of pain as a symptom, without any attempt to alter the underlying condition of which it is a manifestation.

In 1925, Mandl in Europe, and in 1926 Dr. George Swetlow of Brooklyn, reported small groups of patients suffering from anginal pain who had been remarkably relieved by paravertebral injection of alcohol into the dorsal nerve roots on the left side. In these earlier years there was no standard number of nerve roots to be injected, and Swetlow used from two to nine, the number depending to some extent upon careful tests of areas of hyperaesthesia in the skin. Five years after his first paper appeared, he reported 22 patients who had been subjected to this procedure, with relief in 18 of them.

Between 1926 and 1930, however, observations of fundamental importance in this connection were reported by a number of observers, who demonstrated the existence of previously unsuspected postganglionic fibers running across the posterior mediastinum and connecting the posterior cardiac plexus with the upper four or five thoracic sympathetic ganglia. Thanks largely to the splendid experimental and clinical studies of Dr. James White of Boston, it was soon learned that apparently all the nerve fibers which convey pain impulses from the heart into the central nervous system converge in these four or five ganglia and are transmitted over the white communicant rami and posterior roots into the spinal cord. It seemed clear, therefore, that pain impulses could be effectively and permanently blocked by surgical removal or resection of these structures, or injection of alcohol into them. The success of Swetlow's procedures is explained by the fact that he included these upper ganglia in the large number he injected.

The largest number of patients subjected to alcohol injections in this country is the group of Dr. James White, who has now performed this operation in 59. Of these 59, only 46 have been

subjected to detailed analysis. Of this number, 63% have been entirely, or almost entirely, relieved of pain, and another 26% have secured relief estimated by Dr. White's medical colleagues as from 50 to 90%. The operation has failed in only 11% of the group, and these failures occurred chiefly in the earlier patients, before White's technique had been perfected. They are to be ascribed to inability to place the alcohol accurately in all cases in or immediately adjacent to the ganglion. When one considers that he has reserved the injections for those patients who have the severest form of anginal pain, who have not been relieved by medical treatment, and whose lives are almost insupportable, the results are truly astounding.

If there were no complications, this would seem to be an almost ideal procedure for all cases of severe angina, but there are two difficulties. One is the technical difficulty of placing the alcohol accurately, as the injection is done blindly through a long lumbar-puncture needle, and therefore requires considerable experience and constant practice. The second is the fact that a majority of the patients develop a severe alcoholic neuritis of the infiltrated intercostal nerves, resulting in moderate or severe hyperaesthesia and pain. This may persist for weeks or several months, and in some instances is quite distressing. In general, however, the injection of alcohol must be regarded as a safe procedure, without serious complications and without operative mortality. The results appear to be permanent or nearly so, for Dr. White has patients still living and free from pain as long as six or seven years after the injection.

#### Pick's Disease

I come now to the operations directly upon the heart or pericardium, and of these there are three that I wish to discuss in some detail. The first chronologically is that employed for the relief of the condition often known as Pick's disease. You who are medical students today are in the fortunate position of knowing that so-called Pick's disease is actually due to chronic constrictive pericarditis, but until very recent years there has been distressing confusion in the nomenclature and the concepts relating to it. Let me simply remind you that in this condition there is fibrous or bony thickening of the pericardium, which becomes so contracted that the heart is unable to dilate and fill normally in

diastole, and this results in what is known as "inflow stasis". There may or may not be calcification of the pericardium, adhesion between the two pericardial layers, or external adhesions such as I discussed a moment ago in connection with the Brauer operation. The most common finding is an area of fibrous or scar tissue, which may be relatively small, fairly extensive, or involving practically the entire heart. The more important findings clinically include the insidious onset of dropsy, usually in a young person; preponderant enlargement of the liver and ascites; increased venous pressure, with prominence of the jugular veins; a heart that is normal in size or even smaller; and usually low arterial pressure. These features portray a distinctive clinical picture; especially because of the combination of the signs of congestive heart failure with a normal sized heart and low blood pressure. The heart is small for the obvious reason that it is so constricted by fibrous tissue that it cannot possibly enlarge; circulatory failure occurs not because the heart does too much work, but because it cannot dilate to receive enough blood to perform even a normal amount of work.

Beck has repeatedly urged that disturbances of or within the pericardium be considered in the light of their mechanical interference with the heart, and suggests that they be divided into acute and chronic compression of the heart. There is a distinctive triad of signs characterizing each of these; in acute compression of the heart, such as results from rupture of the heart, stab wounds, and occasional cases of acute pericarditis, one finds: a falling arterial pressure, a rising venous pressure, and a small quiet heart. The triad of signs that distinguishes chronic compression of the heart is: a high venous pressure, ascites, and a small quiet heart. Physiologically, all the signs and symptoms of these two conditions may be explained on the basis of these alterations, and I commend them to you as an important part of your medical study.

Confronted by a heart that is normal in structure, but greatly hampered in its movements by an external constricting band or envelope, it was inevitable and proper that attempts should be made to sever or remove the casing and permit the heart to resume its normal contractions. The operation may be technically difficult, but the operative and postoperative mortality are very low, and when the heart can be adequately

relieved, the symptoms and signs soon vanish and the patient returns to a normal life. In 1935 Dr. Paul White, in a splendid paper which did much to clarify the conceptions of this disease, was able to report 29 operations that had been performed in this country, including 10 in Cleveland, 7 in Nashville, and 12 in Boston.

I wish to add that a great deal has been contributed to our knowledge by the experiments of Beck, who found that chronic constrictive pericarditis could be produced in the dog by placing surgical solution of chlorinated soda, or Dakin's solution, in the pericardium. This has permitted the careful and prolonged study of the effects of such pericarditis and the perfection of its surgical treatment.

This operation must be regarded as one of the great advances of recent years, and one that should assume ever greater importance as doctors and medical students become more familiar with the diagnosis and the possibility of complete cure by surgery.

#### Muscle Grafts for Angina

I have already spoken of two indirect surgical measures designed to relieve the pain of anginal heart failure:— total thyroidectomy and paravertebral injections of alcohol. You will recall that I spoke of anginal pain as the expression of a discrepancy between the demands made upon the heart and its ability to meet those demands, and stated that according to present conceptions, the essential cause of the pain is a diminished coronary blood supply, or myocardial ischemia. You will recognize at once that the two operations already discussed had quite different aims; total thyroidectomy aimed at abolishing the discrepancy by lowering the demands of the body upon the heart to a level at which its blood supply would be adequate; while the injection of alcohol aims solely at the interruption of nerve pathways; in other words, at the induction of permanent local anesthesia. But you must already have thought that a much more logical procedure would be one designed to increase the blood supply to the heart. As a matter of fact, this possibility has engaged the serious attention of many surgeons in the past few years, and I wish now to report the present status of the two most promising attempts that have been made.

The first is that of Beck of Cleveland, whom I have often mentioned and who stands in the forefront of American investigators in this field.



After years of experiments upon animals, Beck satisfied himself that it was possible to give the heart a new blood supply by grafting external tissues upon it. There is not time to discuss in detail his many experiments or the proofs he secured that new blood vessels did in fact enter the heart in sufficient numbers and size to permit the subsequent almost total occlusion of the coronary arteries near their source without interfering seriously with the heart's function. On the basis of hundreds of experiments, he decided that it would be possible to give the human heart a new and additional supply of blood by grafting upon its surface a portion of the pectoralis major muscle. On February 13, 1935 he performed this operation for the first time upon a farmer of 48 years who had suffered from typical and rather severe anginal heart failure for five years. Although completely incapacitated for any work before operation because of pain, he began to do light work as a gardener at the hospital four months afterward, and at the last report, in November 1937, the patient considered himself cured and was free from symptoms.

Beck's latest published report summarizes his experience as follows: Twenty-five patients have been operated upon; sixteen are living, nine have died, and eight of these died within a week of the operation. In the first 12 patients the mortality was 50%, while in the last 13, it was only 15%. Thirteen of the living patients have been observed for five or more months after operation. In 3 of them the results were far better than had been expected; these patients were free from pain and had increased tolerance to exercise without medication. Nine patients were improved moderately, and one very slightly.

Beck readily admits that the improvement in the most successful cases may be explained in several ways. It is possible that there is an actual increase in the blood supply of the heart because of the growth into the myocardium of blood vessels from the muscle graft. A second possibility is that there may be a redistribution of the blood in the coronary system, caused by the opening up of intercoronary communications by means of surface trauma, the application of the graft, the insertion of powdered bone into the pericardial cavity, and similar measures. It is Beck's belief that the opening of intercoronary communications may be the explanation of the

improvement noted by almost every patient within eight or ten days, for an additional supply of blood from the graft could not be provided in this brief time. A third possible factor that may explain part of the improvement is the interruption of nerve pathways from the heart, since some of these lying beneath the epicardium may be torn during the operation.

### Omentopexy for Angina

Before discussing the possible disadvantages of this operation, I wish to describe another which is closely related to it, for the aims of the two procedures are identical and the methods are very similar. In the three years 1933 to 1935, similar experiments were being carried on simultaneously and independently by Mr. Laurence O'Shaughnessy in London, Dr. Reinhoff in Baltimore and Dr. Beck in Cleveland; each of them was trying to augment the blood supply of the heart by attaching to it a graft of the omentum, brought up through an opening in the diaphragm and fastened to the pericardium or epicardium. So far as I know, neither Beck nor Reinhoff ever applied this procedure to a human being, but O'Shaughnessy, after many experiments on dogs, performed this operation, known as cardio-omentopexy, on January 4, 1936 upon a patient suffering from severe anginal heart failure. Unfortunately the patient died eight days later from severe intestinal hemorrhage from a chronic duodenal ulcer, but his condition had been considered highly satisfactory during the first week after operation.

At the time of O'Shaughnessy's latest report, in January 1938, fifteen patients with severe anginal heart failure had been subjected to some operative procedure designed to increase the blood supply of the heart. Five of these had died, but only one could be regarded as an operative death; the other four died from six weeks to several months afterward. Of the ten survivors, eight have apparently been completely cured of anginal pain, and seven of them are engaged in active work. Of these eight excellent results, seven occurred after cardio-omentopexy, and one after the insertion of an irritant paste in the pericardial cavity. This irritant was used in the hope that it might cause adhesions to form between the two pericardial layers, through which small blood vessels might grow from the parietal pericardium into the epicardium and myo-

cardium. Beck has employed the same procedure, using powdered beef bone.

It is of course obvious and right that the two procedures must ultimately be judged chiefly on the basis of the results achieved, rather than on theoretical considerations. Yet there are certain considerations that must be given weight in trying to appraise the advantages and disadvantages of these methods. As arguments against the Beck operation one might mention the following: 1st, muscle is not designed primarily to furnish blood to other tissues, but for purposes of contraction; 2d., I am informed that the operation as performed by Beck eliminates the major arterial supply to the muscle and utilizes only the smaller artery; 3d., the blood supply of a muscle put at complete rest tends to diminish as the muscle atrophies; 4th., the operation is a major procedure, as shown by the operative mortality of 50% in the first twelve cases; 5th., the results seem to me very disappointing, since only three of twenty-five patients have been greatly benefitted. In favor of omentopexy there is the fact that one function of the omentum is to provide a new blood supply to tissues that need it; in fact, O'Shaughnessy states that it is the only structure in the body with the specific property of vascularisation, and mentions that the largest uterine myomata are enabled to attain their enormous size only because the omentum attaches itself to them and provides an abundant supply of blood for their continued growth. Instances are reported in which at least a half dozen arteries as large as the brachial have grown from the omentum into a subperitoneal myoma, and this unique ability of the omentum would seem to be of enormous importance in any attempt to provide a new blood supply to the heart. Second, the blood supply from the omentum to the heart apparently increases steadily for at least a year, instead of diminishing. Third, the omentum has the unique ability to attach itself to parts of the heart that may require strengthening, as in one case cited by O'Shaughnessy, where the omentum

was attached over the anterior surface of the heart, but at autopsy some months later was found firmly engrafted over an area of infarction on the posterior surface also. Fourth, the operative procedure is apparently not as hazardous as the muscle transplant, so far as one may judge from the reports.

Actual comparison of the results obtained may be misleading, for the criteria used for selection of cases and for the final appraisal of results may differ in the two groups. If one accepts the latest reports at their face value, however, it seems clear that cardio-omentopexy has given a far greater degree of improvement in the successful cases, and also in a higher percentage of the total group. I have had the privilege of discussing the results recently with Dr. James White, just after his return from England, where he visited Mr. O'Shaughnessy and interviewed some of the anginal patients who had been completely relieved of pain by cardio-omentopexy. Needless to say, Dr. White, with his own long experience in the treatment of such patients by means of alcohol injections, is a highly competent judge, and it means a great deal to know that he is most enthusiastic about the theoretical and experimental background of this operation, and especially about its actual results. On the basis of the reports mentioned and of the considerations just enumerated, I cannot escape the belief that of the two procedures, cardio-omentopexy probably has many advantages, and may well replace the muscle graft of Beck, if indeed either operation proves to be of permanent value.

I know you will appreciate that this is a hurried and very inadequate survey of a broad field; the entire time might easily have been devoted to any one of the operations discussed so briefly. I should like to recapitulate and summarize my remarks before closing. Of the operations upon structures outside the heart, the repair of arteriovenous aneurysm, subtotal thyroidectomy in patients with hyperthyroidism, and paravertebral injections of alcohol into the upper thoracic

*(Concluded on Page 577)*

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## Late Latent Syphilis

ALLAN K. POOLE, M.D., New Haven, Connecticut

The problem of late latent syphilis is of importance to the practitioner of medicine because of the fact that one out of three syphilitic patients whom he sees will be in the latent stage of the disease.

By latency it is meant that the patient shows no clinical evidence of syphilis but does have either a positive blood Wassermann or history of recent infection either with or without treatment. By definition the late latent cases have negative spinal fluids. The group of asymptomatic neuro-syphilis is excluded on the basis of positive spinal fluid findings. This group of CNS cases alone, if spinal fluid examinations are made, will account for 15% of the late latent group.

On the basis of present day knowledge, a further qualification of late latency must be made. Due to Warthin's studies, the true implication of the late latency stage is unfortunately the fact that the clinician is at present unable to discover the subclinical manifestations of the existing disease. The suggestion that the Wassermann reaction was merely analogous to the tuberculin test has not been borne out. On the contrary, the evidence is that the Wassermann actually does indicate spirochaetal activity.

In the late latent cases an extremely important point is the existence of a state of balance between the host and parasite. This state of symbiosis may be a delicate one, and minor changes may result in the liberation of the spirochaetes with subsequent clinical manifestations of disease.

The problem of treatment of the latent group is a serious one, demanding both knowledge and fair judgment on the part of the physician. Each problem must be decided on its own merits. The age of the patient is important. One would not be as anxious to treat a 65 year old patient as a 25 year old. Sex also may be a determining factor.

The problem of pregnancy in females with late latent syphilis presents a challenge. Pregnancy definitely modifies the course of the

disease and unquestionably accounts for the higher incidence of latency in this sex as contrasted with the males. This, however, is no excuse for advising a female to become pregnant as a means of modifying the severity of the disease. The danger of this is obvious when it is realized that only 16% of these latent untreated mothers will have normal children. The prevention of congenital syphilis is just as important as the prevention of late lesions for the mother. Adequate treatment of the latent syphilitic mother offers at least a 70% chance of a normal child.

The problem of co-existing disease must raise the question as to whether the patient is able to tolerate anti-syphilitic treatment, and which disease is the more important as to duration of life or resultant disability.

The assumption that late latent syphilis need not be treated is unjustifiable. One need only see J. E. Moore's figures on the point to realize the desirability of treatment. These patients should be treated as intensively as their age and physical condition will permit. If these cases are untreated, only 30% can expect a biological cure. At least 30% can be expected to develop reasonably serious late manifestations if untreated. Fortunately very few of them will develop C.N.S. involvement: i.e., 1 to 2%, if the spinal fluid is negative at the time latency is reached.

The above figures should be sufficient to justify the treatment of latent syphilis, yet there are other equally valid reasons. The problem of infectiousness must still be considered in this group. Although the infectivity may decrease with the increase in the duration of the infection, it still remains a serious problem unless treated. The high incidence of conjugal syphilis, 60%, speaks for itself.

It is unfortunate that so many syphilitics have become late latent cases by the time the disease is discovered, but intelligent handling of these cases offers a great measure of relief to a large percentage of them.

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

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**NEWS.**— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

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## • Editorials •

### THE ANESTHESIA PROBLEM IN PRE-PAID HOSPITALIZATION PLANS

How should the anesthetist be paid under the new contracts for pre-paid hospitalization? A corollary to this question may be stated: How can the patient pay for this and other special services without the annoyance of paying for each service separately? These questions concern not only the anesthetist but other branches of medicine and the thought is in many minds that this definite tendency toward simplifying the bill-paying by the patient may create unsound cheapening of these services and impairment of their quality.

Certain features are common to all of the special services. Almost all the professional activity of these specialists is, or might easily be, confined to a hospital. Expensive equipment and an elaborate staff of assistants are necessary. While small community hospitals may not feel the necessity of such high degree of organization, any large hospital must meet and solve these problems. The usual solution has been to secure the continuous professional care for ward patients and supervision of the personnel and equipment of the department, in compensation for which the special service physicians are given a virtual monopoly on the private patients in their respective fields.

Pathologists are the only full salaried physicians, about whom the profession is largely agreed. They are happy under these arrangements, they do good work, there is almost no patient-physician contact and we believe that in Connecticut at least there is little if any profiteering by hospitals on their professional work.

The Roentgenologist is quite commonly on a salary in the pre-payment plan hospitals. Much private fee practice still exists and, as a group, the Roentgenologists have resisted being put on a salary, though maintaining a virtual monopoly of the "business". "Free choice of a physician" is not possible under the circumstances and a patient-physician relationship is the exception rather than the rule in the diagnostic branches.



The inconvenience of separate bills is often avoided by collecting on the hospital bill for professional as well as technical services.

In many small hospitals the anesthetist is still paid on a fee basis though this fee is often collected at the same time and often on the same bill head as the operator's and assistant's fee, or along with the hospital bill.

Before anesthesia developed as a highly technical specialty, casual anesthetists were very widely used. Only in the last few years have surgeons begun to realize what a difference it makes to have a well organized anesthesia department under specially trained physicians. This type of service costs more than the relatively unskilled anesthesia formerly employed. The physician-anesthetist must undergo a prolonged training to satisfy a national examining board in this specialty. He can relieve the operator of responsibilities which the latter should not carry and he definitely has come to stay.

Hospital insurance plans generally include anesthesia provided it is given by an employee of the hospital. The patient must therefore pay an extra fee if he wishes a physician-anesthetist in any hospital where only nurses are employed. Already progressive hospitals, furnishing high-grade facilities of this kind which make for a high per diem cost, find themselves at a disadvantage as compared to low cost institutions. They fear that patients who have to count the pennies will select the cheaper service unmindful of the value of better service. We have little fear, however, that in the long run, such will be the case. The world will beat a pathway to the door of the best "mouse trap maker" and hospitals which persist in furnishing the highest grade of service will not only gain the confidence of the public but will get its "hospital business" as well.

We feel that it is highly important to make the payments for medical and hospital services as convenient for the patient as it is possible to do. So far as organized medicine is concerned, it does not matter whether anesthetists be on a salary or on a fee basis provided salaried work is done:—

1. Under conditions conducive to maintaining high standards of service and to improving such service,

2. That there is no unfair solicitation of patients,

3. That no profits are made on the professional services,

4. That the physician is adequately paid.

In all social changes which progress as rapidly as has the extension of the pre-payment plans, it is inevitable that difficulties and mistakes should occur. During this period much wisdom is needed to see that these plans properly safeguard the legitimate interests of the hospitals, the physicians, and above all, the patients.

J.R.M.

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## A VIRUS DISEASE OF HORSE AND MAN

For a number of years equine encephalomyelitis has been recognized as a highly fatal disease among horses throughout the country, destroying many thousands of horses in some of the western states. Within the last few years mosquitoes have been shown to be the vector for this virus and some half a dozen or more species of mosquitoes are implicated. Two strains of virus are recognized in this country known as the eastern and western strains.

An epoch-making discovery was reported by Fothergill and associates in the *New England Journal of Medicine* for September 22, 1938 when they announced the isolation from a fatal case of human encephalitis of a virus which appears to be identical with the eastern type of virus causing equine encephalomyelitis. Their findings have been confirmed by Webster and Wright at the Rockefeller Institute for Medical Research as reported in *Science* for September 30, 1938.

Reports from Massachusetts indicate that several cases of highly fatal encephalitis have occurred among children in communities where encephalomyelitis was known to occur among horses. So far, no correlation has been observed between the cases of equine encephalomyelitis and human encephalitis reported in Connecticut. According to information obtained from Doctor George E. Corwin, Deputy Commissioner on Domestic Animals, a total of 23 cases of equine encephalomyelitis were reported in Connecticut this year up till October 6. These were distributed as follows:

August 22	New Milford	1
September 10	Thompson	3
September 12	Stonington section	3
September 16	Windham	1
September 20	Stonington section	3
		1 recovered

September 26	Union	3
September 26	Willimantic	1
September 28	Manchester section	4
September 28	New London section	2
October 3	Madison section	2

equine encephalomyelitis appear optimistic enough to feel that eventually we may develop vaccines for other diseases due to viruses.

M.K.

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### THE FAIRFIELD COUNTY WAY

On an October day, nearly a century ago, Emerson wrote Carlyle, "We are a little wild here with numberless projects of social reform. Not a reading man but has a draft of a new Community in his waistcoat pocket. One man renounces the use of animal food; and another of coin; and another of domestic hired service; and another of the State; but on the whole we have a commendable share of reason and hope". How easy it would be to make just such a comment on conditions as they are today, for an all-time peak in schemes and experiments in the revision of the social order has now been reached.

Medicine and medical care have come in for an abundant share of these plots and proposals for reformation, and medical organizations everywhere are in a great dither with plans and projects. Economics seems to supersede science and art. In the presence of all this it is heartening to see "a commendable share of reason" here and there as in the Fairfield County Association which is willing, along with its social reforming, to be just a Medical Society and to extend its usefulness by setting up a scientific program that will continue throughout the coming winter. (Page 574). Great credit is due those who introduced the idea and arranged the programs which promise to be richly informative.

Social reformers may have difficulty in making their enthusiasm practically effective, but the extension of knowledge will ever progress.

C.B.

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### THE JOURNAL IN ITS OWN OFFICE

On October 1 at the tender age of slightly over two years the JOURNAL took up its abode in a separate office of its own. Needless to say this move is a delight to the Board and in particular to the Editor whose private office was gradually becoming submerged with exchange journals, books for review, electrotypes and one hundred and one other things attendant upon the successful editing of a monthly medical publication. Kindly note the new address, 54 Church Street, Hartford, and address all communications to this address.

According to records of the state department of health, epidemic encephalitis cases have been reported in Connecticut for the current year as follows:

<i>Date Reported</i>	<i>Age</i>	<i>City or Town</i>
February 16	12	Waterford
February 21	61	Bethel
March 9	25	Greenwich
March 18	15	Stamford City
April 11	6	Hartford
August 8	4½	Windham
August 11	20	Southington
September 29	16	Southington

It will be noted that only one of these cases was reported from a town where a case of equine encephalomyelitis has been known to occur and the human case in this town was reported more than a month before the equine case. It may be added that a study of cases and deaths from encephalitis reported in Connecticut since 1921 does not show any correlation between the prevalence of human encephalitis and that of equine encephalomyelitis. Outbreaks of the latter disease occurred in 1928 and 1933 and sporadic cases were observed during other years.

However, evidence that the virus of equine encephalomyelitis may cause a highly fatal encephalitis in children, brings the matter forcibly to our attention with a view to discovering methods of prevention. How the disease is carried to humans is not known, though recognition of mosquitoes as the vector for horses may serve to bring mosquitoes under suspicion as a possible vector for humans. Until more information is acquired concerning the matter, it would appear highly desirable to take special precautionary measures to protect humans, especially children against mosquitoes.

Another point of particular interest is the development of a vaccine that is said to be effective in immunizing horses against equine encephalomyelitis virus. This is of particular interest in view of difficulties encountered in trying to develop immunizing procedures against virus diseases. Some workers with the problem of



The regular quarterly meeting of the Board was held at the Farmington Country Club on October 13. Routine business was discussed by the members of the Board and by those News Editors who were able to attend.



### NEED OF A NATIONAL COUNCIL ON MEDICAL EDUCATION, LICENSURE, AND HOSPITALS

Dr. Willard C. Rappleye, Dean of Faculty of Medicine, Columbia University, in an address delivered before the American Surgical Association at Atlantic City in May, 1938, calls attention to the need for a National Council on Medical Education, Licensure, and Hospitals. We quote excerpts from his address:

"Students entering medicine prepare in about 600 colleges and universities. The requirements for admission vary considerably. There is a wide range of opinion on the objectives and content of preprofessional education. The basis of selection by different schools is not only undefined but frequently contradictory. Recent developments in graduate fields of instruction emphasize the need of better criteria of selection at the source. The situation is confusing to students and to those responsible for the conduct of the colleges and universities. There are numerous problems relating to general and medical education pressing for study and solution, yet there is no convenient mechanism in existence by which these mutual problems of medical schools and colleges can be discussed and defined."

"The proportion of residencies meeting a real educational level is smaller. There is need for joint and continuing study of the place and functions of the internship and residency in the evolution of the medical course, graduate training and licensure."

"It is becoming increasingly apparent to those familiar with the situation that there is need of coordination of the various phases of medical education and better definition of the several areas of responsibility of national and state agencies, universities, hospitals, and professional bodies dealing with portions of the whole program, if medicine in this country is to meet fully its obligations."

"A National Council on Medical Education, Licensure and Hospitals should be created from

within our present organizations, made up of representatives of the universities, medical schools, hospitals, practicing profession, specialty boards, state licensing bodies and public health agencies."

"The functions of the proposed National Council on Medical Education, Licensure and Hospitals would be those of studying the major educational needs of American medicine, of mobilizing the best current opinions regarding the different phases of professional training at its several levels, of formulating adequate standards for these activities, and of advising regulatory bodies and governmental agencies on standards, methods, procedures and areas of action."



### TERRY LECTURES BY PROFESSOR HENRY E. SIGERIST, M.D.

The Dwight Harrington Terry Foundation Lectures on "Religion in the Light of Science and Philosophy" will be given this year by Professor Henry E. Sigerist, M.D., Director of the Institute of the History of Medicine, Johns Hopkins University, on Wednesday, Thursday and Friday, November 2, 3 and 4, at 5:00 P.M., in the auditorium of the Sterling Law Buildings, Yale University. Dr. Sigerist's subject will be "Medicine and Human Welfare." These lectures are made possible by the late Dwight H. Terry of Plymouth, Connecticut, through his gift of \$100,000 as an endowment fund and were formerly given by Joseph Needham. They are open to the public without charge and without ticket.

In accordance with the terms of the gift, Dr. Sigerist will also give one lecture in Bridgeport, at the United Church Forum, on Sunday evening, November 6, at 7:30.



### CHANGE OF ADDRESS

In case of change of address notify the JOURNAL office, 54 Church Street, Hartford, Connecticut, at once and save delay in receiving your copy. Incidentally this will save the JOURNAL quite a sum which it is now necessary to expend each month in postage paid for returned undelivered copies.

# From the Secretary's Office

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## PLAN FOR PREPAID MEDICAL CARE

With the increasing popularity of the prepayment plan for hospital care it becomes increasingly apparent that some device of this kind may be used for distributing the burden of the cost of medical care. The subject has been discussed by the Council and at its meeting on September 22, the Chairman appointed a Committee consisting of James R. Miller, Thomas P. Murdock, Samuel C. Harvey and the Society's Secretary to make a detailed inquiry into the proposal.



## COMMITTEE ON INDUSTRIAL HEALTH

The Council has appointed a Committee on Industrial Health to cooperate with the newly formed Council on Industrial Health of the American Medical Association. The following members of the Society have been appointed to this new committee: Drs. William A. Sunderland, Danbury; Richard O'B. Shea, Bridgeport; Benedict N. Whipple, Bristol; Donald B. Wells, Hartford; John Purney, New Britain; Paul W. Vestal, New Haven; Clifford Kuh, New Haven, Chairman; John S. Dye, Waterbury; Cole B. Gibson, Meriden.



## WINTER PROGRAM FOR FAIRFIELD COUNTY

The Fairfield County Association in cooperation with the local medical societies in the county have scheduled a series of meetings for each month through the winter, various phases of disturbances of the upper gastro-intestinal tract will be considered.

November 8th, Bridgeport, Stratfield Hotel, 8:30 P.M., "The Patient and His Indigestion,"

Dr. Zacharias Bercovitz, New York.

January 10th, Greenwich, Pickwick Arms Hotel, 8:30 P.M., "Treatment of Peptic Ulcer and its Complications," Dr. John L. Kantor, New York.

February 8th, Norwalk, Norwalk Hospital, 8:30 P.M., "Carcinoma of the Stomach," Dr. Samuel C. Harvey, New Haven.

March 14th, Stamford, Stamford Hospital, 8:30 P.M., "Diseases of the Gall-bladder and Bile-Ducts," Dr. Isidore S. Ravdin, Philadelphia.

April 11th, Bridgeport, Stratfield Hotel, 4:00 P.M., Annual Meeting.

May 11th, Danbury, Hotel Green, 9:00 P.M., "Diseases of the Liver," Dr. Chester M. Jones, Boston.



## SURVEY OF MEDICAL SERVICE POSTPONED

The Council at its meeting on September 22, voted to postpone, for the present, the study of medical care in the State that had been previously authorized.



## COMMITTEE ON ARRANGEMENTS FOR ANNUAL MEETING

The Committee on Arrangements for the Annual Meeting of the Connecticut State Medical Society appointed from the New Haven County Medical Association is as follows:—

Charles E. Sanford, Chairman  
Ralph E. McDonnell, Secretary  
Ralph W. Nichols  
John Mendillo  
Samuel J. Silverberg  
William J. Dennehy  
Harry L. Welsh

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## SECTION ON Orthopedic Surgery

### Nemours Foundation for Crippled Children

This month near Wilmington, Delaware, a new 100-bed hospital for crippled children will be started under provisions made in the will of the late Mr. Alfred I. Dupont. An illustrious board of orthopaedic consultants who will constitute a medical advisory committee has been appointed. The medical director of the foundation is Dr. Alfred R. Shands, Jr. This new institution will, in many ways, be similar to Newington Home for Crippled Children. It will have besides the medical care of the child, the education and graduate instruction uppermost in its consideration. The actual physical layout will resemble the Wingate Morris Hospital in Oxford, England.

### Studies on the Epidemiology of Poliomyelitis

From the Public Health Reports, Washington, D. C., No. 1951, very interesting information can be obtained concerning the distribution and character of all epidemics of poliomyelitis since 1932. However, one searches this report in vain for any relatively new information. Many hypotheses have been advanced relative to the cause and spread of this dreaded disease but to date the United States Government Public Health Service has very little to offer in the way of concrete evidence to support any single hypothesis.

### The Patient and the Weather

Dr. William F. Petersen, assistant professor of medicine of the University of Illinois Medical School, has just completed the fourth volume on this intriguing subject. It is reported as a scholarly bit of writing and apparently offers a challenge to the orthopedic surgeon in particular.

**John L. Porter**, professor emeritus of orthopedic surgery, North Western Medical School, Chicago, died on August 11, 1938.

**Professor Rene Leriche**, outstanding surgeon of France, was recently awarded the Lister medal for proficiency in experimental and clinical surgery. This is one more honor added to the long list already possessed by Professor Leriche. His contributions to orthopedic surgery have been well recognized for many years.

### Total Removal of the Patella

Dr. A. H. Bissell of Stamford, Connecticut, reported a case of total removal of the patella in the American Journal of Surgery, Volume 60, No. 2, May, 1938. A number of English writers have recently reported several similar cases with excellent results.

### Meeting of the Orthopedic Section

A meeting of the Orthopedic Section will be called by the secretary in the very near future. It is quite important that all members attend. Notices will be mailed to each member by the secretary.

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### NEW OFFICERS OF THE HEZEKIAH BEARDSLEY CLUB

The Hezekiah Beardsley Pediatric Club of Connecticut elected at its meeting on September 21 the following officers to serve for a term of one year:

President — Claude V. Calvin, Bridgeport.  
Secretary — Joseph L. Hetzel, Waterbury.  
Treasurer — E. T. Wakeman, New Haven.

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### UNUSUAL COMPLICATION FOLLOWING USE OF PRONTOSIL

Nandi in the Calcutta Medical Journal, August, 1938, reports an unusual complication following the administration of "prontosil". A patient with retained placenta, after the placenta had been removed manually, was given prontosil album gr. 10 t.i.d. as a prophylactic. From the third day onwards the patient developed tenderness, pain and effusion in both knee joints together with an intermittent fever rising to 101 degrees F. Three days following cessation of the drug the symptoms were entirely cleared up.

**REPORT OF THE DELEGATES TO THE SPECIAL  
MEETING OF THE AMERICAN MEDICAL  
ASSOCIATION, HELD IN CHICAGO,  
SEPTEMBER 16 and 17, 1938**

Your Delegates wish to report that both of them attended the special meeting held in Chicago to consider the National Health Program submitted to the National Health Conference at Washington, D. C.

The session was opened with addresses by the Speaker, Dr. H. H. Shoulders, President Irvin Abell, President-Elect Rock Sleyster, and Dr. Arthur W. Booth, Chairman of the Board of Trustees. These addresses were all of them excellent.

The method by which the business was handled is not without interest. Inasmuch as the recommendations of the National Health Program were under five heads, five committees of five were appointed. To each committee was assigned the consideration of one of the five recommendations. These committees held hearings on the afternoon of September 16th, many of which continued into the early hours of the next morning. On the morning of September 17th these reports were submitted to the House of Delegates and were freely discussed. This occurred after a brief meeting of the whole Committee of Twenty-five under the chairmanship of Dr. Walter F. Donaldson, of Pennsylvania. Following this procedure a report was presented by Dr. Donaldson, who with the five chairmen of the sub-committees, had formulated a final report. On the afternoon of September 17th this report was submitted to the House of Delegates, was discussed and amended in certain respects, and this report in full will be found in the Journal of the A. M. A., for September 24, 1938, on pages 1215 and 1216.

Your Delegates would like to report that they both had the impression that the whole spirit of the meeting was a liberal and receptive one. Readers of the report will note that many of the recommendations of the proposed National Health Program were approved and that care was taken to safeguard the interests of the profession in all of the recommendations. It is to be particularly noted that under Recommendation 1 on expansion of public health service it was stressed that any expenditures made for this purpose should not include the treatment of disease, except so far as this could not be successfully accomplished through the private practitioner.

Under recommendation 2, which covered the expansion of hospital facilities the report stressed the fact that there was at present greater need for the use of existing hospital facilities than for additional hospitals. They pointed out that the stability and efficiency of many existing voluntary hospitals could be assured if these institutions were remunerated for the cost of caring for the medically indigent.

Under Recommendation 3 on medical care for the medically needy the Committee recognized the principle that this care was the responsibility of the community and should be organized locally. They recognized the possibility that under existing circumstances subsidies from the Federal Government might be required in some places.

Under Recommendation 4 the chief points stressed were approval of the principle of hospital service insurance and the suggestion that it might be practicable to develop cash indemnity insurance plans which must comply with state statutes governing insurance. *It was stated specifically that no system of compulsory health insurance would be acceptable.* The soundness of the principles of workmen's compensation laws was here recognized and an expansion of such legislation was recommended to provide for meeting the costs of illness sustained as a result of employment in industry.

Under recommendation 5, the insurance against loss of wages during sickness was unreservedly indorsed in principle, as the committee thought it had a distinct influence toward recovery and tended to reduce permanent disability. The chief point stressed however was that in the interest of good medical care the attending physician should be relieved of the duty of certification of illness and recovery and that this function should be performed by a qualified medical employee of the disbursing agency.

It was finally suggested that a committee of not more than seven be appointed by the Speaker under the chairmanship of Dr. Irvin Abell to confer and consult with the proper Federal representatives relative to the proposed National Health Program. The Speaker appointed Dr. Walter F. Donaldson, of Pennsylvania, who had been Chairman of the Committee of Twenty-five, the five chairmen of the sub-committees, Dr. Walter E. Vest, of West Virginia, Dr. H. A. Luce, of Michigan, Dr. Fred W. Rankin, of the Section on Surgery, Dr. Frederick E. Sondern, of New York, and Dr. E. H. Cary, of Texas. The President-Elect, Dr. Rock Sleyster, and the Secretary of the Association, Dr. Olin West, were declared by the Speaker to be members of the committee ex-officio.

*In conclusion your Committee would like to point out that at no time was there the slightest indication that the permanent officers of the Association attempted to bring pressure of any sort on the House of Delegates. The statement which has been made in the public press that the American Medical Association is a medical trust dominated by the Secretary, The Editor, and the other permanent officers of the Association, is a pure figment of the imagination.*

Respectfully submitted,  
WALTER R. STEINER,  
GEORGE BLUMER,

**The PROFESSIONAL  
EQUIPMENT Co.**

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## HYPNOTISM AND ITS RELATION TO ANESTHESIA

(Concluded from Page 533)

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## SOME EXPERIENCES GAINED IN A SERIES OF FIVE HUNDRED EPIDURAL BLOCKS

(Concluded from Page 543)

canal preventing proper diffusion of the anesthetic solution. Poor surgical risks show a better recovery when this method of anesthesia is used.

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## ROLE OF SURGERY IN TREATMENT OF HEART DISEASE

(Concluded from Page 568)

sympathetic ganglia are all sound in theory and have been proved highly satisfactory by years of experience. Total thyroidectomy for the relief of congestive or anginal heart failure has been largely abandoned. The various operations upon the sympathetic nervous system for the relief of hypertension are still in the trial stage, but it is my belief that these also will be abandoned in the near future. The Brauer operation I believe to be of value in some cases, but probably not for the reasons originally stated . . . . . Of the operations upon the heart itself, the removal of part or all of a thickened and constricting pericardium for the cure of Pick's disease must be rated as one of the brilliant contributions of cardiac surgery, and it deserves a prominent place in our medical teaching. The grafting of pectoral muscle upon the heart has yielded results that are moderately encouraging, but I seriously doubt if the operation in its present form will survive. The grafting of omentum upon the heart, on the contrary, seems to me the most promising approach that has yet been made to the solution of this important problem, and with improvements in the technical aspects, may become a therapeutic measure of great and widespread value. Let us remember that cardiac surgery is still only about one generation old; great strides have been made in that brief time and in the next one or two decades we may witness advances as yet undreamed of.

## FIRST AID WORK OF THE AMERICAN RED CROSS

More than 1,700,000 men and woman have been trained by the Red Cross to administer first aid to injured persons. This work has been going on since 1910. It took 25 years to train the first million. It is expected to take four years to train the second.

More than 2,400 Highway Emergency First Aid Stations have been established by Red Cross chapters. They are to be found in every state of the Union. Upwards of 2,000 Mobile Emergency First Aid Units cruise our highways under the Red Cross insignia.



Home and farm accidents are responsible for more fatalities than any other type of mishap. Red Cross chapters in all parts of the country have undertaken a concerted campaign against the hazards responsible for these deaths. Millions of families have been reached and made aware of dangers, and how to avoid them.

Service of this kind is made possible by millions of members in the 3,712 Red Cross chapters. Everyone may assist in maintaining this service by joining a local chapter. The annual Roll Call begins Armistice Day and ends Thanksgiving.

Membership in the American Red Cross is an inexpensive form of disaster insurance. No one knows when or where fire, flood or tornado may strike, but when it does, the Red Cross swings into action.

## Our Neighbors

### MAINE

In its October issue the Maine Medical Journal pays fitting tribute to Dr. Erville Gerhardt Abbott, world famous orthopedic surgeon of Portland who died during the past summer. Dr. Abbott is characterized as "the foremost medical man in Maine in his day and generation." Few physicians of the past three decades in this country are still in practice who are not familiar with Dr. Abbott's treatment of scoliosis in which he became a recognized authority. Patients came to him from all parts of the world and he was invited to lecture in several European countries, in many of which he was accorded distinguished honors.



### MASSACHUSETTS

Following the recommendation of the Committee on Post-graduate Instruction to the Council of the Massachusetts Medical Society in June, a clinical congress has been arranged by the Society for this autumn. Called the New England Post-graduate Assembly, it will be held at Sanders Theater, Harvard University, Cambridge, on November 15 and 16. Ten prominent medical educators and practitioners will deliver a series of thirty minute talks covering a variety of topics of general interest in the diagnosis and treatment of disease. Connecticut will be represented by two physicians, Francis G. Blake and Louis H. Nahum, both of New Haven. The registration fee of three dollars covers admission not only to all sessions but also to an informal dinner in Memorial Hall, Harvard University, on the evening on the first day.



### NEW HAMPSHIRE

A law requiring a blood test for syphilis of all persons seeking licenses to marry is now in effect in New Hampshire. The test must be made at the state laboratory at Concord to be acceptable and out of state applicants must conform to the requirements laid on New Hampshire residents.



### NEW JERSEY

The Medical Society of New Jersey, in an endeavor to ascertain the actual need of medical care which is not being adequately met, in July invited every person in New Jersey thus situated to communicate with the society's office in Trenton. 120 out of a population of over four million in the state made requests for medical care but in many instances it was found that medical care was actually provided but people were unaware of how to obtain it. This plan was highly praised by the newspapers as an effort to make medical care available.

Believing that there should be a wider participation of the County Medical Societies in medical administration, President Carrington of the State Society held a training conference for all county Society officers in Trenton on September 11. State wide problems as they affect the County Societies were discussed by State Society officers. It is the belief in New Jersey that every physician should acquire knowledge and skill in the practice of administrative medicine because the government will compel him to engage in its practice if he does not engage in it voluntarily.



### NEW YORK

The Commissioner of Motor Vehicles of New York State has notified the Medical Society of the State that he is prepared to set aside, exclusively for practicing physicians, special license plates bearing the designation "M.D.," followed by numbers up to 9,999. The Council has authorized a committee of two physicians to work out with the Commissioner details to facilitate assignment of plates. Applications for such plates are to be made through the County Society Secretaries. If this plan were to be adopted throughout the United States it might prevent many embarrassing situations for the physician. We shall have ample opportunity to note just how much such a privilege may be abused.

Dr. Rufus Cole, commencement speaker at Cornell University Medical College, declared that much of the present weakness in the intern system was due to the inability of the interns to devote themselves wholeheartedly "to the business of becoming medical men and scientists". Dr. Cole believes that automobiles, girls and motion pictures have no place on the intern's

program. We might add to these the epidemic disease of week ends, many times unduly protracted.



### VERMONT

The College of Medicine of the University of Vermont has adopted the requirement of three years of college work as minimum for admission. This requirement goes into effect in the autumn of 1939.

## - NEWS -

### *from County Associations*

#### Fairfield

The fall meeting of the Fairfield County Medical Association was held at the Hotel Green in Danbury on October 5. There was an unusually large attendance. Dr. Alfred Z. Gilman of New Haven presented a very interesting paper on "Mechanics of the Gastro-intestinal Tract in Health and Disease", this being the first of a series of papers on gastro-intestinal diseases planned for this fall and winter in this county. During the business meeting which followed a program for medical care was presented by the Medical Economics Committee. This plan is based on a varying service charge in the different wage income groups up to \$2100. The sum available for distribution to physicians in return for services rendered will depend, under this plan, on the net receipts from patients purchasing the plan. Final action on the plan has been deferred until the Association has had more time in which to consider it.



#### Hartford

Word has been received from Sarasota, Florida, that Dr. Joseph Halton has erected an addition to his hospital accommodating nine rooms with twenty-one beds. Dr. Millard B. White of Tampa is now associated with Dr. Halton. Those in Hartford County who indulge in golf are well acquainted with Dr. Halton, an annual visitor to these parts.

### Litchfield

Dr. Albert W. Buck, Director of the Charlotte Hungerford Hospital, was recently elected delegate from the State of Connecticut to the newly created House of Delegates of the American Hospital Association. Chosen as alternate was Dr. Wilmar M. Allen, Director of the Hartford Hospital. The annual convention was held at Dallas, Texas, September 26th to 30th.

Two guest speakers have been entertained by the Journal Club of the Charlotte Hungerford Hospital. At a meeting on August 11th, Dr. Gilbert Hubert presented the results of interesting original investigation on the clinical applications of Testosterone Propionate. Dr. Hubert is at present Resident in Pediatrics at the Albany Hospital. On September 1st, Professor William German of the Yale Medical School described recent advances in the treatment of fracture dislocations of the cervical spine, with presentation of recent case histories.

On July 27th, Drs. William Murcko and Andrew Orlowski, both of Torrington, Connecticut, were appointed to the Staff of the Charlotte Hungerford Hospital.

The semi-annual meeting of the Litchfield County Medical Association was held at the camp of Dr. Hanchett on Bantam Lake, October 4. Remarks were made by several of the State Society officers and the paper of the evening was presented by Dr. J. Douglas Gold of Bridgeport, subject, "Some Common Skin Diseases." Dr. and Mrs. Hanchett's hospitality was thoroughly enjoyed as usual by all who were fortunate enough to attend.



### Middlesex

Dr. Carl P. Wagner announces the opening of the Marlborough House in connection with Elmcrest Manor. The second floor of the house will be used for additional rooms for patients, while the first floor will be devoted to additional therapeutic facilities and recreation rooms.

The professional staff of the Connecticut State Hospital in Middletown has conducted for some time intensive treatment of cases of dementia praecox with metrazol. The results so far have not been compiled for publication but appear to be most encouraging. Extensive research is being conducted relative to the relationship of allergy to epilepsy. Several preliminary reports have been published on this work.

The staff finds itself handicapped in that three vacancies exist which with a 40% over-capacity census throws an exceptionally heavy load upon each member.

The new building program based on the present number of hospital patients will result in a census 20% over capacity. This program calls for a completely new modern hospital building for the care of mental cases having pulmonary tuberculosis. Additional facilities are planned for the infirmed. There is to be a complete re-vamping of the laboratory facilities. The southern part of the north hospital is to be rebuilt as a laboratory using the basement and first two floors. The basement will contain the autopsy room with a small amphitheater for observation. The upper floors will be equipped with the necessary apparatus for the conduct of a modern laboratory.

Middlesex county endured with the rest of the state its greatest disaster when it was struck by the hurricane and tidal wave of September 21, 1938. Six victims were drowned along the beach front in the towns of Old Saybrook and Westbrook. Hundreds of beach cottages were ruined including those belonging to physicians in this and other counties. The homes of Dr. William Tate of Deep River and the late Dr. John E. Loveland of Middletown were extensively damaged by falling trees. The Middlesex Hospital received only minor damage to its buildings although many of the trees on the grounds were uprooted. All power lines including the recently installed emergency circuit were down and power was off for twenty-four hours. The hospital was isolated for a few hours because all outlets were effectually blocked by fallen trees, poles and cables. An appendectomy was performed as the storm subsided. A portable battery-fed lighting apparatus was used for illumination.

At the State Hospital damage to buildings and grounds is estimated at \$40,000. The greatest damage was done to roofs. Temporary repairs are now under way. The main cottage and the main central building received extensive damage. One hundred and forty-one trees on the spacious grounds fell. The auditorium was partly flooded. Authorities at the hospital stated that the patients as a whole behaved satisfactorily during the storm and seemed no more terror stricken than the population at large.



Coincident with and subsequent to the storm the county suffered another disaster when the Connecticut river overflowed its banks to reach a flood stage the second highest in recent times.

Hundreds of families were driven from their homes in Middletown, Portland and Cromwell and lesser numbers in towns through the lower part of the county. These were cared for by the



**Fig. 1.**

Middletown's Crescent Street looking east from the Middlesex Hospital the morning after the disastrous hurricane.

**Fig. 2.**

The Middletown-Cromwell Highway was traversed only by boats during the height of the flood.



**Fig. 3.**

Middletown's new incinerator and sewage disposal plant finds itself in a lake setting when the Connecticut river overflows its banks.



Red Cross agencies of the respective towns. The public health aspect was under the guidance of the local health groups. In Middletown immunization against typhoid and para-typhoid infections was carried out on a fairly large scale at the State Armory.

Cromwell suffered heavily from both disasters and for a time was completely isolated. Approximately 500 flood refugees were cared for by the social agencies in town. A temporary hospital was set up in Vasa Hall with Dr. Walter N. Nelson in charge.

Cromwell Hall escaped extensive damage to buildings but the grounds were badly damaged. Many of its ornamental elms and maples were uprooted.

Dr. Matthew Griswold of the Connecticut State Department of Health addressed the staff of the Middlesex Hospital on September 14, relative to the conduct of the hospital's tumor clinic. The staff voted to cooperate with local and state agencies in feasible plans for lay education regarding malignant disease.

Dr. Alfred N. Sweet of Middletown addressed the first meeting of the season of the Central Medical Society. He spoke on the meeting of the New England fracture committee of the American College of Surgeons.

The 147th semi-annual meeting of the Middlesex County Medical Association was held at the Edgewood Country Club in Cromwell on October 13, 1938. Dr. Ella A. Wilder, President, presided and called the meeting to order at 5 P.M. The afternoon address was delivered by Dr. Herbert Adams of the Lahey Clinic in Boston who spoke on "Management of Goitre." The after dinner speaker was Professor Ralph F. Bischoff of Wesleyan University. His subject was "Conditions in Czechoslovakia."

The report of the committee appointed for revision of the By-laws of the County Association was read and accepted.

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### New Haven

The first regular meeting of the New Haven Medical Association in October was held in the Association's rooms on October 5th at 8 45 o'clock. Dr. Hugo Roesler, Associate Professor of Roentgenology and Cardiologist, Temple University, Philadelphia, addressed the meeting on "Some Common Errors in the Treatment and Diagnosis of Heart Disease." The second meet-

ing held on the evening of October 19th was addressed by Dr. Arthur Fishberg, Associate Physician, Mt. Sinai Hospital, New York City, on the subject, "Recent Advances in Hypertension."

The Yale Medical Society held its first meeting of the season on the evening of October 12th in the Sterling Hall of Medicine. The following program was presented:

1. Disturbances in Renal Function in Adrenal Insufficiency, H. E. Harrison and D. C. Darrow.

2. Body Section in Roentgenography, Hugh M. Wilson.

3. The Effect of the Adrenal Cortical Hormone on the Carbohydrate Metabolism of Normal, Adrenalectomized and Hypophysectomized Animals, Benjamin Katzin.

4. A Clinical Study of Arresting Dental Caries, Bert G. Anderson.

Of the ten-year graduates of Connecticut's only Medical School (Class of 1928, Yale University School of Medicine) fifteen of the fifty-one graduates are at present practicing medicine in Connecticut. Seven of these are located in New Haven County. The forty-seven three-year graduates (Class of 1935, Yale School of Medicine) are represented in Connecticut by ten men and one woman. Two of these eleven doctors are engaged in the private practice of medicine in New Haven County and seven are practicing in other counties.

Officers of the Hospital of St. Raphael have announced plans for a program of new building construction within the next two years involving expenditure of half a million dollars. In order to execute this construction project the hospital will utilize all land now owned by the Anderson Gymnasium Company and the Arnold Holding Company, at present the site of buildings used by the Arnold College for hygiene and physical education. The hospital is to purchase the property for \$110,000.00 and will assume title thereto January 31, 1939. The proposed new buildings will provide facilities for which overcrowding in the present hospital plant has created a pressing need. Louis Walsh, architect, of Waterbury, has been commissioned to draw the plans for the construction.

The Yale Gallery of Fine Arts, during the past month, exhibited paintings and etchings by four professors of Yale Medical School, Bertram G.



Bruestle, H. S. Burr, Armin Hemberger and Herbert Thoms.

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### Windham

Married at Putnam on August 22, Dr. T. M. Rivers of Kissimmee, Florida, to Miss Amy Prouty of Putnam.

## • OBITUARIES •

### ROBERT V. BOYCE, M.D.

1890 - 1937

Robert V. Boyce, son of Robert H. and Elizabeth Lawler Boyce, was born in Hartford, Connecticut, February 2nd, 1890. He was graduated from the Hartford High School in 1909 and from the University of Vermont with the degree of Doctor of Medicine in 1913. Following an internship at Polyclinic Hospital, New York, he took up the practice of medicine in Hartford. During most of his professional life he showed a special interest in obstetrics and was for many years Attending Obstetrician to St. Francis Hospital, a position he held at the time of his death. During the World War he served as morale officer at Camp Greenleaf, and following his discharge from the service, returned to Hartford and resumed his practice.

Dr. Boyce was vice-president of the first Hartford Board of Public Welfare, formed after the old Board of Charities was abolished. He was appointed to the Health Board in 1933 and in 1936 was unanimously elected to head the board.

During the flood of March, 1936, Dr. Boyce as president of the Health Board, worked tirelessly to direct the city's precautionary measures to prevent spread of disease as a result of flood conditions. Under his direction inoculation of thousands of children and adults against typhoid fever was accomplished.

In May of 1936 Dr. Boyce was named acting Health Officer of Hartford and in July of the same year resigned from the Health Board at the expiration of his term as acting health officer.

At the suggestion of Dr. Boyce a division of tuberculosis was added to the Health Depart-

ment in 1935, operating under the direction of a part-time physician.

Dr. Boyce was a lover of the outdoor life and found his recreation in hunting, fishing and Boy and Girl Scout activities with his children. He was eagerly sought for as a companion by his fellow physicians in their hours of recreation. His death December 29th, 1937, was unexpected following a short attack of acute lobar pneumonia.

Dr. Boyce was a member of the Hartford Medical Society, the Hartford County Medical Association, the Connecticut State Medical Society and the American Medical Association. He was a member of the staff of St. Francis Hospital in the position of Attending Obstetrician.

He is survived by four children, Mary, Helen, William and Robert. His wife, and the mother of his children, Mary Murray Boyce died in 1935.

Edward J. Whalen, M.D.

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### WILLIAM ELYR CALDWELL, M.D.

1869 - 1937

Dr. William Elry Caldwell was born in Butler, Pennsylvania, September 16, 1869, the son of John B. Caldwell and Nancy Robinson Caldwell. He received his elementary education in the public schools there, and then entered the Baltimore Medical College (now merged with the University of Maryland Medical School) from which he graduated April 17, 1894.

In the spring of that year he started a general practice in West Suffield, which he carried on until 1910 when he moved to Suffield. In 1896 he was married to Miss Eva Root of West Suffield.

As Medical Examiner and Health Officer for thirty-five years, Dr. Caldwell took an active interest in civic matters, devoting much time to preventive work in his practice and among the school children. He was a member of the Hartford County Medical Association, Connecticut State Medical Society, and the American Medical Association. He was on the courtesy staff of the Springfield (Mass.) Hospital, Wesson Maternity Hospital, and Hartford Hospital.

Dr. Caldwell was deeply interested in church activities, being a member and Senior Deacon of the First Church of Christ, Congregational, of Suffield for many years, and teaching a Junior

Boys' Class in the Sunday School up to within a year of his death. He was a member of Apollo Lodge of Masons, Washington Chapter, and Suffield Council, both of Suffield, and of Washington Commandery, Knights Templar of Hartford. He had served on the School Board, was a Trustee of Suffield Academy, and a Director of the Kent Memorial Library.

Of a generous and philanthropic nature, Dr. Caldwell devoted much of his time and energy to his practice without thought of reward except in his own satisfaction. As a physician, he was well abreast of his times; as a friend, he held a place in the hearts of many that can never be supplanted. In the last few years of his practice, his courage would not let him give up, and he often responded to the calls of the sick to the detriment of his own health. His cheerful disposition inspired faith, and gave to his patients that spiritual courage which is such a vital part of healing.

William H. Upson, M.D.

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#### PAUL RUSSELL STETSON, M.D.

1878 - 1937

Dr. Paul Russell Stetson passed away at his home in New Haven on December 7, 1937, at the age of fifty-nine. His father came from old Maine stock and had a tremendous interest in the woods and its wild life, doing a great deal of hunting and taxidermy. His mother, Mary Ann Britto, was born in Winsted, Conn., of German and French extraction.

Dr. Stetson graduated in medicine from Yale in 1902 and since then had been in general practice in New Haven, in which field he was very successful and his patients not only looked upon him as their physician but as a friend and advisor as well.

Throughout his life, Dr. Stetson showed a strong inheritance from his father in his love of the woods and nature. In spite of his large practice he always found time to spend out doors during the hunting season, and at other times for training hunting dogs, raising and racing carrier pigeons and for fishing. He was much interested in local gun clubs and his closest friends were among sportsmen. On hunting trips his keen sense of humor and large fund of anecdotes made him the life of the party. Although a great sportsman, he was distinctly a family man and

enjoyed much of his free time with his family, being a devoted husband and father.

About a year ago he had a slight cerebral accident but continued his practice without interruption, and on December 2, 1937, he had a severe cerebral hemorrhage from which he died December 7th.

Dr. Stetson is survived by his wife, the former Clara Kusterer of New Haven, and three children, Joseph Kusterer Stetson of Old Lyme, Mrs. Mary Gertrude Turck of New Haven and William Paul Stetson, a senior in the Medical Department of the University of Vermont.

Thomas H. Russell, M.D.

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#### MENDEL VOLKENHEIM, M.D.

1885 - 1937

Mendel Volkenheim, the son of Abraham and Sarah Volkenheim, was born in Russia in 1885, but with his parents he came to New Haven when he was two years old and spent his early life in that city. His education was received in the public schools and the Boardmann High School there, and his professional training at Yale Medical School from which he was graduated in 1908.

Following an internship in New York Lying-In Hospital he came to New Britain where for nearly twenty years he had a very large general and obstetrical practice. He became interested in dermatology during this time and devoted considerable study to skin diseases, doing post-graduate work at Columbia University and Post-Graduate Hospital, New York, to fit himself for this specialty. He then gave up general practice, relocating in Hartford to devote his entire practice to dermatology. In 1932, however, he returned to New Britain. He was then appointed consulting dermatologist at the New Britain General Hospital, an appointment held until his death.

Of a quiet, self-effacing nature, Dr. Volkenheim nevertheless made a host of friends among his colleagues and patients. To the former he gave his advice, sought frequently, and was especially kind in a substantial manner to the younger men trying to become established. To his patients he gave of himself, without regard to class or creed, with a generosity that will make his loss felt for some time to come.

Clifton M. Cooley, M.D.



## • Quarto Notes •

### CANCER With Special Reference to Cancer of the Breast

by R. J. Behan, M.D.  
Dr. Med. (Berlin) F. A. C. S.

844 pages \$10.00  
St. Louis C. V. Mosby Co. 1938

This is a comprehensive and detailed study of cancer, especially cancer of the breast.

After an historical and statistical review the author makes a study of the theories of etiology. Pathology, biochemistry and biophysics are next considered. Further chapters are devoted to symptomatology and diagnosis. The indications for and technique of biopsy are clearly presented. There follows a discussion of metastases and association with other diseases. A study of the prognosis is made in regard to curability, to life expectancy and to morbidity.

Fifteen chapters are devoted to the study of treatment. Operative indications and procedures are discussed. The more theoretical treatments such as chemotherapy and organotherapy are presented. The importance of constitutional treatment is emphasized. X-ray and radium therapy are taken up in great detail.

It is a painstaking study of the subject with good illustrations and complete statistical tables.

B. Dodd

—☆☆—

### THE PATHOLOGY OF DIABETES MELLITUS

by Shields Warren, M.D.

2nd edition 246 pages \$4.75  
Philadelphia Lea and Febiger 1938

This valuable monograph has indeed been thoroughly revised. The number of citations from the literature of the current year and from work as yet unpublished is remarkable. As much consideration is given to pathologic physiology and to clinical considerations as to anatomic pathology. The material treated, largely from the Joslin Clinic, is derived not only from autopsies, but also from biopsies, amputations and clinical studies. This is inevitable since it is apparent that the pathology described is so largely that of conditions associated with diabetes rather than of diabetes itself, and differs little if any from

that of the same conditions apart from diabetes. Some chapters depend entirely on clinical data, repeating to a large extent the material in Dr. Joslin's book.

In the first edition, Dr. Warren stated that he had never examined a patient with diabetes of five years duration who did not have arteriosclerosis. Since that time he has encountered exceptions to this dictum. General differences are noted between the types of arterial disease in diabetic and non-diabetic subjects, but the author admits that all gradations between the two occur, and that it is often impossible to recognize from the vessels alone whether or not gangrene is diabetic. He also remarks upon the lack of correlation between the severity or duration of diabetes and the condition of the arteries.

The recent production of permanent diabetes in dogs by the temporary administration of massive doses of potent extracts of the anterior lobe of the pituitary is described. The pituitaries from a group of the author's cases studied intensively by Dr. Eisenhardt, however, revealed no consistent significant abnormalities, and there is still no convincing evidence that disturbance of pituitary function plays the important role in clinical diabetes.

P. H. Laviertes

—☆☆—

### NEW INSTRUMENT FOR DETECTING NIGHT BLINDNESS

A new scientific instrument requiring only eight minutes to ascertain whether a person is deficient in vitamin A and afflicted with night blindness, now recognized as a major factor in night auto accidents, has been announced by the American Optical Company. Clinically attested and approved, this instrument called the Adaptometer, is the first ever developed to detect night blindness in a few minutes.

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## NARCOLEPSY

ULRICH, H.: Narcolepsy and Its Treatment with Benzedrine Sulfate—New Eng. J. Med., 217:696, 1937.

## GASTRO-INTESTINAL EFFECTS

MYERSON, A. and RITVO, M.: Benzedrine Sulfate and Its Value in Spasm of the Gastro-Intestinal Tract—J.A.M.A., 107:24, 1936.

## POST-ENCEPHALITIC PARKINSONISM

DAVIS, P. L. and STEWART, W. B.: The Use of Benzedrine Sulfate in Post-Encephalitic Parkinsonism—J.A.M.A., 110:1890, 1938.

## DEPRESSION

WILBUR, D. L.; MACLEAN, A. R. and ALLEN, E. V.: Clinical Observations on the Effect of Benzedrine Sulphate—J.A.M.A., 109:549, 1937.

WOOLLEY, L. F.: The Clinical Effects of Benzedrine Sulphate in Mental Patients with Retarded Activity—Psych. Quart., 12:66, 1938.

## MISCELLANEOUS

REIFENSTEIN, E. C., JR. and DAVIDOFF, E.: The Treatment of Alcoholic Psychoses with Benzedrine Sulfate—J.A.M.A., 110:1811, 1938.

HILL, J.: Benzedrine in Seasickness—Brit. Med. Jour., ii:1109, 1937.

LESSES, M. F. and MYERSON, A.: Human Autonomic Pharmacology. XVI. Benzedrine Sulfate as an Aid in the Treatment of Obesity—New Eng. J. Med., 218:119, 1938.

Present Status of Benzedrine Sulfate — Report of the Council on Pharmacy and Chemistry — J.A.M.A., 109:2064, 1937.

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## Morphology Of The Love Story\*

JOSEPH HERGESHEIMER

EDITOR'S NOTE:—Although the policy of the Journal is to publish scientific papers and to keep the medical profession of Connecticut informed as to the developments of various phases of the practice of medicine, it does not seem amiss to digress from the beaten path when opportunity knocks at its door. Mr. Hergesheimer should need no introduction to any reader of the modern novel. His reputation far transcends the geographical limits of our small state.

The third meaning, in the Oxford English Dictionary, of morphology is the history of variation in form. Under that definition, consequently, it is a term equally proper and convenient to both medicine and the profession of letters. It is a bridge and common preoccupation binding us together. Especially since the subject immediately, if not perpetually, before us is love. That is, the emotion exposed to public view in the love story. This sometimes beautiful and always significant delineation, it is necessary to point out, has practically vanished. Love stories continue to be written and widely if condescendingly read, but they are no longer a serious issue; with the more solemn and current novelists and critics they are no issue at all. The fact that one at least, lately, may be laid on my doorstep is without bearing since I am neither solemn nor current.

The love story, then, was at its flood through a period reaching from shortly after 1880 — the year of my birth — until, broadly speaking, 1900. Between the ages of ten and fifteen, I read a great number of them, and in particular recall those of Ouida and of another woman who called herself, with elegant brevity, the Duchess. Ouida specialized in scented guardsmen while the Duchess concentrated on singularly beauti-

ful, infallibly virtuous, Irish girls. There were, of course, many others — nothing, it might be said, but love stories were then composed. Some narratives of adventure did appear; William Dean Howells was experimenting with the dullness of what, I understand, is referred to as realism; but love easily triumphed over every other kind of fiction. This transcendent subject, these stories, followed a common and indeed invariable pattern — the agonies and relationships of a perversely innocent triangle.

There was, first, the heroine, always, except for the black-haired Kelts of the Duchess, brilliantly blonde. The miracle of golden hair — a gift of the barbarians to Mediterranean civilization — has never lost its power over an unreflective masculine world. The gloriously blonde heroine, then, with wide-opened, probably myopic, blue eyes held the center of a universal sentimentality. Her principal characteristics, in the order of their importance, were first the adamant chastity already noted, an inexhaustible talent for suffering, and what I am obliged to call a transcendent stupidity. Her aptness for misunderstanding the simplest situation, a preference for idle and prolonged pain, amounted to positive genius. In every mortal situation, it must be remembered, she remained a lady. At that period, in love stories, a lady had a heart but no diaphragm; narrow, arched feet but no legs; and a Spencerian form of speech.

The hero was the exact counterpart, the perfect repository, of those virtues. However, he possessed qualities of his own. The hero, for

\*Read at the Semi-Annual Meeting, New Haven County Medical Association, Waterbury, October 27, 1938.

example, was invariably poor at the beginning of a love story and exceedingly rich at its conclusion. The sole exception to this law was furnished by the perfumed, and titled, guardsman. In that case, however, there was a corresponding profusion of preliminary sorrows. The hero owned a classic form and face. His eyes, as well, were commonly blue, although his hair was often dark; but dark or gold it infallibly curled crisply on a noble brow and temples. Let us admit at once that, if anything, his brain was more impervious to accidents of thought than the heroine's. He, too, had an extravagant gift for suffering; but it was a contained suffering; at most a fleet shadow would darken the marble brow. The heroine's genius for misunderstanding was nothing, it was frivolous, compared with the hero's inability to see the end of his own faultless nose.

The third member of this triangle, obviously, was the villain; and he, in contrast to the hero, was always, always, incalculably rich at a love story's beginning. At the beginning! He had two and only two modes of dress — he was either immaculate in a white tie or, at times of particular villainy, folded in a black cloak with a velvet collar. Always, you will observe, properly and engagingly dressed! The villain was further distinguished by a silk hat and perfidious black moustache that, at the moment of the heroine's greatest degradation, searing to her soul, he pressed on a blanched and shrinking cheek.

They were the main, practically the only, characters of the love story at its apogee. The rest were inconsiderable — loyal family servants, the villain's unspeakable accomplices, glacial parents, and friends on whose inclined ears the woes of the heroine, the hero's rhetorical futility, interminably beat. All this, except for a sylvan glade, a stately hall and mean domicile in a city's most destitute purlieu, took place in a vacuum. The principal business of a love story was love — a love at once frigid and burning; remote and immediate; an affair of the spirit which, at bottom, was wholly material.

This, the materiality, was its most striking quality. It is not too much to say that the love in question was purely mundane. I have pointed out how, at the end of a love story, the hero was invariably possessed of great riches. The riches, actually, constitute the entire affair. Love it-

self, the fundamental biology of that casual impulse, would have been equally distressing to both hero and heroine. Ironical enough among all three the villain alone was capable of love. Throughout the heroine's existence the only love she met was his. The sole generous excitement and passion that stirred her to a semblance of humanity befell while the villain still pursued her.

For look, he sacrificed everything to the object of his inextinguishable desire. The villain gave up all, his ill-gotten but comfortable gains, life itself, in a hopeless and heroic chance of possessing the heroine. The emotions that distorted his evilly — in other words candidly — handsome face were demonstrably the ravages of authentic love. At the moment of that unhallowed kiss the villain was torn, he was distracted, by an honest and laudable, indeed a morally essential, compulsion. How, in comparison, does the hero appear? Like a half-melted five cent cone of vanilla ice cream!

The hero, in the first place, filling the air with sentiments, filling the heroine with protestations, like the printed messages on valentines, in reality is always and only intent upon himself. In all these love stories the hero will be found laboring to restore his deceased father's good name and large possessions. He is exclusively occupied with a conception of honor that turns out to be nothing beyond his own petty self-esteem. Invariably at crucial — and romantic — moments he is absent from the heroine battling against hideous odds on completely inconsequential issues. At the end, naturally, he clasps his constant female against a triumphant and muscular chest. The major and minor muscles, I am assured, are not the seat of emotion.

Marriage formed no part of the post-Victorian love story. Utter contentment is implied; in the bolder examples a garland of little ones is even faintly suggested — repetitions, in the pictorial tradition of Raphael, of Elsie Dinsmore and Rollo. Merely this, I have a feeling, was asking too much of them. And yet the very state ignored by such halcyon writers, the condition of marriage, was precisely what brought their fragile accomplishment to an end. The truth is painful. Too many heroines married their heroes; too many women in real life, identically covering a hard shrewdness with chastely pretty hypocrisies, discovered the essential



emptiness of conventional material prosperity. Women in real life, immolated in passionless and respectable suburbs, began to recall with a very private and supporting memory the moments when they, too, had been pursued by villains.

These clear intimations of mistaken values could only give rise to vain regrets and useless, stifled rebellions. It dawned on women in varying degrees that since life, and especially love, were inflammable it might be their business to burn. Somehow, they saw, at a brief instant of beauty, of youth, they had given themselves too arrogantly to a false and tepid fate. There were, possibly, other employments than bridge for a lovely afternoon in April; in themselves, at one time, there had been potentialities of drama far more stirring than a borrowed and artificial excitement at matinees.

When this discovery had become general stories of love in the style of 1890 vanished swiftly and forever; and — since in the present United States novels and stories are almost exclusively the concern of middle-aged, unsatisfied women — a very different variety of printed entertainment accompanied that wide-spread disenchantment. The hero, in love's later version, was transformed into a husband, a sufficiently well-meaning and even useful creature appallingly ignorant of Sigmund Freud, Mante-gazza and Doctor Marie Stopes. Simultaneous with this indignity the villain made his reappearance in a vastly embellished capacity. The novel, now, began with marriage. It began, really, with the impact of the villain on a scene of domestic infelicity and dullness. In this reincarnation, however, his pursuit is not in vain.

The scented guardsman — resembling an innocent Keltic maidenhood — has vanished with the hero, and the villain, who in the past had no avocation whatever beyond the heroine, I regret to say, becomes an eminent, or young and earnest, doctor; at times he is a celebrated engineer; he is a strong man of affairs or, perhaps, a Senator. At any rate he is now the center of events; the woman mainly involved loves him madly and too well; and the end, if not outright tragedy, is muffled in sadness and relinquishment.

What I should like to make absolutely plain is that, fundamentally, this later development of the love story is, for the majority, no improvement on an earlier and more innocuous pattern.

They both end in negation — one, the first, by the frustration of wilful blindness, and the other through a revolt, a minor species of self-indulgence, equally bare of dignity and satisfaction. While the attitude of the currently popular novel differs in structure from its predecessor, at bottom it is no more than a continuation of the so-called moral view of nature. Far removed from a celebration of love old and new are scarcely varied expressions of the primitive Christian Church's antagonism toward human, biological, passion and marriage.

That was not confined to the earliest canon but persisted through all the Middle Ages. St. Jerome's words in this connection were held to be final. "Marriage peoples the earth, but virginity peoples heaven." The Blessed Jerome declared on more than one occasion that the unclean animals went into the ark two by two, and that while two was a notoriously bad number, odd numbers were no less plainly good. There is, perhaps, more significance in the fact that an increasing antagonism between men and women is perceptible in modern civilization. The present young, both in their reading and attitude, are sceptical about the whole romantic legend of love. There is a wide refusal among girls to regard it — in the form of marriage — as the one glorious crown of women. At the same time younger men have grown realistic about the beauty and burdens of the married state. The business of nature, they are discovering, is not invariably identical with their individual development and ambitions.

However, that warfare between the individual and nature, rather than a property of today, reaches back into the beginnings of human existence. The early Christian fathers merely crystalized it in a particular and theological form — they squarely opposed heaven to earth; earth, earthly love, were simply a momentary trial, a vale of sin, for souls hurried to the eternities of heaven or hell. In this struggle it is premature, at least, to assert that a measure of divinity has triumphed over nature. The persistence, in any form at all, of the love story is evidence to the contrary. Indeed, there are not inconsiderable men who are convinced that, alike at beginning and end, nature will show itself to be invincible.

That is not, to me, a doctrine of despair. From the age of ten I have read what love stories

were available with inexhaustible attention. At sixty, an age when memories begin to take the place of experience, I am still willing, if not anxious, to give nature a whole-hearted support. I would like nothing better than the privilege of reading a good love story — where the unclean animals went two by two. But then I am not only old but old-fashioned. Writers today, the vast feminine majority of readers, disagree with my antiquated tastes. The women demand a vicarious release from the obligations of their respectable materialism; to the serious novelist the boll-weevil is the favorite villain; the hero's passion burns for some particular economic and social utopia; the heroine has vanished. Her place has been taken by a companion more or less in skirts, a fellow worker in the cause of abstract justice. The little ones, Rollo and Elsie Dinsmore, have disappeared as well. Children in the more solemn stories have become sociological experiments or an extension of adult self-expression. Where children appear, so to speak, under their own steam it is only to lend the child labor laws weight. If these views are correct, if any particular social and economic utopia is approaching realization, I regard my advanced years with acute pleasure; I am delighted they are sixty instead of ten; since now it's impossible for me to reach the era of threatened improvement.

I am, like every man with sensibilities, an enemy of injustice; I am forced, still further, to admit the iniquities that result from special privilege; yet I am relieved by the reflection that privilege cannot be abolished before my demise. I have no confidence in a forced equality. I am quite without longing for a female companion unbecomingly clad in the harsh materials of a cold and violent socialism. The ephemeral accidents of face and figure are not, to me, contemptible. I am engaged, flattered and encouraged by fetching and extravagant dresses, delicate and costly perfumes; when, against a white throat, I see the iridescence of pearls, I am never distracted by the reflection that every single pearl would, for a month, quiet the hunger of a necessitous and large family. If any theology whatever promised validly to remove all the original — the human — sin I had been fortunate enough to inherit I would flee in the happy company of the other wicked. I am greatly beholden to my sinfulness.

Looking back upon the love stories of a wholly different time I am, as well, indebted to them: the lovely heroine, steeped in sorrow, gave me a tender happiness; I strove with the hero against forces that, in reason, should have annihilated him instantly; and, in my young ignorance, I too reviled the villain. I missed, in other words, the only authentic feeling, the one evidence of love, that was permitted to expose itself in print. When I grew older the villain had been elevated to a position of importance; he was viewed sympathetically; yet, with persistent irony, bathed in a sentimental light he was only tawdry. Among other things he had lost the white tie and sweeping cloak with its velvet collar. The perfidious moustache was gone together with a blanched and shrinking cheek. A kiss no longer had power to sear the scarcely virgin soul. The villain's position was humiliating; in place of abduction, headlong violence, his passion and acts were surreptitious; he was a dodger in and out of suburban doors; a morbid and, I suspect, largely impotent non-entity. Love, perhaps, had made its final bow to a more orderly mechanism of human relationships. The word itself begins to have a slightly faded aspect, to appear faintly ridiculous. The young know better and the old preserve their decorum. The old were bamboozled by a false and destructive aspect of morality, but the young, we are permitted to reflect, are bamboozling themselves.



### THIRD CONGRESS OF PAN-PACIFIC SURGICAL ASSOCIATION

The third meeting of the Pan-Pacific Surgical Association will be held in Honolulu, September 15-28, 1939. An invitation has been extended to all surgeons of the Connecticut State Medical Society to meet in Honolulu outstanding men from countries of the Pacific area, including Australia, New Zealand, China, Japan, Java, Canada, United States, for an interchange of surgical thought and for the purpose of bringing about better understanding through personal contact among the surgeons of these countries. There will be sections in fractures and orthopedics, general surgery, gynecology, motion pictures, neurology, ophthalmology, otolaryngology, roentgenology, plastic surgery, thoracic surgery and neurology, all headed up by outstanding men as chairmen for the United States and equally prominent men as chairmen for the Australasian section. In addition a vacation in the "Paradise of the Pacific" is afforded. Frederick L. Reichert, M.D., Stanford University Hospital, San Francisco, is program chairman for the United States.



## Public Health Aspects of Syphilis

THOMAS PARRAN, M.D.  
Washington, D. C.

An important job of the public health officer is to prevent the spread of communicable disease. Depending upon the life habits of the microbe enemy, his methods vary.

When he attacks whooping cough, physical isolation of the patient may be his safest course. When he attacks malaria, he may concentrate upon the drainage of swamps. When he attacks scarlet fever, the isolation of the patient and investigation of the milk supply concern him primarily.

But when he attacks syphilis, diagnosis and treatment must be his methods. He must first find syphilis, wherever it is in the community. He must then organize facilities for treating every patient. Only in this way, may the spread of syphilis be checked and those already its victims prevented from becoming a burden upon the community in later years.

The first step in the control plan is serologic blood testing. Tests must be given to those suspected of possible contact. The test must be popularized as a routine part of all physical examinations. A rational procedure to apply in every case must no longer be regarded as a reflection upon the character of the person who is asked to submit to it. The serologic blood test should routinely be given to those in whom the community has a special interest; those about to be married, and those about to bring children into the world. The serologic test will serve not only as a dragnet for syphilis but as a valuable educational device. The man who has seen a blood test loses his fear. The man who hasn't had one hears about it from the man who has.

Important in the control program are adequate and highly skilled laboratory services freely available to every practitioner.

Treatment must be made available to everyone in the community. There are three groups who must be reached.

First, the ordinary citizen who can afford to pay for proper medical care. To him only edu-

cation need be directed. He must understand the problem of syphilis, seek a blood test, and once in treatment stay in treatment through the long course of 70 injections recommended by the Cooperative Clinical Group. He should go to a qualified physician and not to the quack. Neither should he be reassured by the normal disappearance of early clinical manifestations.

Second, is the patient of limited means — the person who can pay a little, who can carry small illnesses, but hardly so long a procedure as that which leads to satisfactory results in syphilis.

In order to reach this group without discrimination or embarrassment, a recommended part of the venereal disease control program has been the distribution of free antisyphilitic drugs for all cases, regardless of ability to pay. Thus the private doctor can afford to treat the case for a minimum fee and carry many patients who might otherwise be a drain upon his own resources, or who would have to attend a free clinic.

Third, is the medically indigent. This group should have access to free and efficiently organized clinics.

The fact that the patient accepts such service, should not brand him a pauper, nor should the machinery of providing it rip away those shreds of self-respect and independence our economy has allowed him to retain. Neither should he become a burden upon the medical profession. He and the doctor should not proceed upon the forlorn hope that perhaps some day in the near future he can pay a reasonable private fee.

So, through education bring patients to doctors, and keep them there. Through the provision of free laboratory service and free drugs, through systematic organization of clinical facilities for the low income groups, public health seeks to fulfill its responsibility in syphilis control. It is a responsibility that will not be ended until every infectious case of syphilis is under treatment, and until every case of syphilis is kept under treatment until the optimum results are assured.

## Virus Proteins\*

STANHOPE BAYNE-JONES, M.D.

New Haven, Conn.

A new field of investigation of viruses was opened in 1935 when Dr. W. M. Stanley, at the Rockefeller Institute for Medical Research, at Princeton, isolated in crystalline form the virus of mosaic disease of Turkish tobacco. This material, obtained by chemical treatment of the juice of infected plants, was found to be a nucleoprotein of high molecular weight. The protein possessed all the properties of the virus. As the virus activity remained constant through fractional crystallization and was unchanged following 15 successive crystallizations, and as various changes induced in the protein were accompanied by proportional changes in the activity of the virus, the conclusion was drawn that the protein is the virus. This opinion has been strengthened by additional evidence given by Stanley and confirmed by the work of others for this virus and other viruses. Controversy continues as to whether the protein and the virus are actually the same or whether the virus, as a separate substance, is included within aggregates of protein molecules. In my opinion the evidence is overwhelmingly in favor of Stanley's view with regard to the mosaic virus, and probably also with regard to other viruses, although only a few have been sufficiently purified for this type of study. It is becoming more and more the custom to use the term "virus protein" in place of the older term "filterable virus."

The virus protein which has been most extensively studied thus far is that of tobacco mosaic. One of its conspicuous properties is its high molecular weight, estimated as of the order of 10,000,000 to 17,000,000. This was determined by its sedimentation constant in the modern ultracentrifuges of the types devised by Svedberg, Beams and Wyckoff. The protein molecules of tobacco mosaic virus appear to be rod-shaped. As these rods sediment faster when they are arranged parallel to the axis of a centrifuge

tube than when they lie across the diameter this figure of molecular weight may have to be reduced. Even after reduction, however, the molecule will be unusually heavy and will remain in the class of gigantic macromolecules whose existence was unknown, and even unsuspected, a few years ago. Apparently the virus protein of tobacco mosaic is typical of virus proteins in general. The evidence indicates, therefore, that the virus proteins are probably nucleoproteins of high molecular weights. The range of estimated molecular weights of virus proteins, including bacteriophage is approximately from 1,000,000 to 300,000,000.

The importance of this characteristic is that advantage can be taken of the weight to separate virus protein from other constituents of cells by means of oil-driven or air-driven turbine ultracentrifuges, the rotors of which, spinning at rates of 40,000 or more revolutions per minute, generate a force thousands of times that of gravity. By this means molecules can now be sedimented. The chief examples of virus proteins from animal diseases obtained by this method are equine encephalitis and the Shope papilloma virus. The latter is particularly interesting because Rous has shown that it is one of the agents which can induce cancer in rabbits. The possibility is thus provided for searching for heavy proteins in other types of cancer, with a view toward investigation of the relation of viruses to cancer of man and animals.

These proteins are of greatest interest to biologists and all who are concerned with the study of the large group of diseases which viruses produce in man, animals, insects, plants and bacteria. Immunologists are deeply interested in these proteins because they have special antigenic properties, the investigation of which is certain to advance the general science and may lead to the production of vaccines for the control of some of the diseases caused by viruses. These

\*Presented at the Fourteenth Clinical Congress, Connecticut State Medical Society, New Haven, September 21, 1938.



proteins are rich material for chemists, physical chemists, and physicists.

One of the great mysteries of the minute viruses is their ability to reproduce their own kind and to change or "mutate" within the cells of living organisms. Although they cannot be cultivated on lifeless media they show many of the characteristics of living entities within the environment of living cells. The virus proteins have these same properties of reproduction and change of characteristics. Therefore, the isolation of virus proteins brings somewhat nearer a knowledge of their nature. This, however, has aroused anew arguments over spontaneous generation and much speculative controversy as to how molecules may reproduce themselves. To all biologists, to physicians, to laymen, and indeed to all people, these substances, perhaps the simplest of all biological systems, are certain to be important because it is not too much to expect that in time the study of the virus proteins will throw some light on the way in which protoplasm grows.



#### GUILD OF PRESCRIPTION OPTICIANS HOLDS JOINT MEETING WITH CONNECTICUT EYE PHYSICIANS

The Connecticut State Guild of Prescription Opticians was the first state organization of its kind to invite the ophthalmologists of the state to a joint meeting. This new feature in cooperation took place in New Haven in May of this year. On the program were Dr. Eugene M. Blake of New Haven and Dr. Walter L. Hogan of Hartford. Richard B. Lewis of Harvey & Lewis is vice-president of the Connecticut Guild and P. Edward Joyce of Lowry & Joyce is secretary.



#### ELIXIR OF SULFANILAMIDE

S. E. Massengill Company, Bristol, Tennessee, was recently fined \$16,800 on 122 counts by a Federal court in Greenville, Tenn., which upheld the contention of the U. S. Department of Jus-

tice and the Food and Drug Administration that the Company was guilty of misbranding and adulteration in connection with the sale of Elixir of Sulfanilamide.



#### RESPONSIBILITY FOR THE NON-RESIDENT CRIPPLED CHILD

Reciprocal agreements between states in regard to services for individual crippled children whose parents have not yet acquired residence in a State to which they have moved or who are living temporarily in a State in which they are not legal residents are being developed under the social-security program.

If a child eligible for medical care is a bona fide resident of a State administering a program of services for crippled children under the Social Security Act, it has appeared to be a desirable policy for the official agency in that State to assume responsibility for meeting the cost of medical care until the family has established residence in the State to which it has moved or until the child has returned to his home State. Federal funds brought into the State program on a matching basis under the Social Security Act can be expended for this purpose. In such instances, the quality of services can be safeguarded by the official agency in the State where the child is receiving medical care. The development of such policies means that crippled children will not be denied the necessary medical care because of residence restrictions. This is undoubtedly the intent of the social-security legislation.

The Nebraska State plan for services for crippled children under the Social Security Act now includes a provision that the State agency will assume financial responsibility for needed medical care for children whose families are legal residents of Nebraska but who are temporarily living in another State. It is hoped that other States will adopt similar provisions in their State plans in order to facilitate the handling of cases of this nature.—*The Child*, Sept., 1937.

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## Pyelitis in Pregnancy\*

NICHOLSON J. EASTMAN, M.D., Baltimore, Maryland

The variety of therapeutic methods which have been advocated for the treatment of pyelitis in pregnancy is evidence in itself that we lack any one established and successful form of therapy. Actual cure of pyelitis during pregnancy, indeed, is rarely possible since the atonic ureters with their content of static urine prove usually an insuperable handicap, and during this period all that can be hoped for is relief of the acute evidence of the disease. In general, therapy has two objectives: relief of stasis and urinary antisepsis. Forced water drinking serves both these ends and is the most important single measure at our disposal both in the prophylaxis and in the treatment of the disease.

Administration of alkali is a simple and effective means of treating most cases of pyelitis in pregnancy. Essential factors in the treatment are the production of a copious flow of urine and a markedly alkaline urine. Clinical experience shows that the optimum degree of alkalinity is a minimum of pH 7.6, that is, a degree of alkalinity slightly greater than the normal reaction of the blood. To attain this degree of alkalinity sodium bicarbonate, 15 to 30 grains, four times daily is usually employed, but Crabtree prefers potassium citrate in dosages of 60 to 80 grains a day. Since large doses of sodium bicarbonate tend to induce vomiting and since appreciable amounts of potassium citrate may cause diarrhea, Osman recommends that the two salts be given together, each in slightly moderated dosage. In his experience this permits the administration of large amounts of alkali with a minimal likelihood of gastro-intestinal disturbance. A survey of the methods used in American obstetrical clinics indicates that alkali therapy, combined with a copious water intake, is the initial procedure usually employed. In 90 per cent of cases, perhaps, clinical improvement follows promptly and the asymptomatic (but still uncured) patient can be carried to term satisfactorily.

Mandelic acid is a simply hydroxy acid ( $C_6H_5$  CHOH COOH) which resembles closely in chemical configuration beta-hydroxybutyric acid ( $CH_3$  CHOH  $CH_2$  COOH); it is non-toxic and is excreted unchanged in the urine which it renders bacteriostatic. The two objectives in treating pyelitis by this drug are to obtain a sufficiently high concentration of the drug in a urine of high acidity. Helmholtz and Osterberg have shown that in a concentration between 0.5 and 1.0 per cent and at a pH between 5.0 and 5.5, mandelic acid acts bactericidally on all the common gram-negative bacilli. Mandelic acid is now generally given in the form of the ammonium salt. If the urine does not reach the necessary pH of 5.5, ammonium chloride (2 to 4 Gm. a day) can be given in addition. The mandelate is excreted in the urine almost quantitatively so that by knowing the amount given in twenty-four hours and the daily output of urine, the concentration of mandelic acid in the urine can be kept at approximately 1 per cent. The usual adult dosage is 12 Gm. a day, that is, 3 Gm. four times daily, taken after each meal and at bed-time. The twenty-four hour quantity of urine should be kept at about 1000 cc. The reaction of the urine should be estimated by the use of methyl red, a few drops of which are added to some urine in a test tube. If the acidity is satisfactory, a pink color will be obtained; if too alkaline, the urine remains yellow or orange. Morson has employed mandelic acid in ten cases of pyelitis complicating pregnancy. In seven the urine became normal after ten days of treatment. Although additional observations are necessary before this drug can be properly evaluated, it would seem worthy of further trial in certain cases in which alkalis have failed.

Following the observations of Imhauser in 1935 that sulfanilamide produced favorable results in colon bacillus infections of the bladder and kidneys, Helmholtz demonstrated that the urine of patients taking the drug develops defi-

\*Abstract of paper read before the 14th Clinical Congress, Connecticut State Medical Society, New Haven, September 20-22, 1938.



nite bactericidal power for such organisms as are commonly found in infections of the urinary tract. The dosage recommended by Cook and Buchtel is 30 grains (2 Gm.) the first day, 40 grains (2.6 Gm.) the second day and 60 grains (4 Gm.) the third day, the dose being decreased on the fourth day to 40 grains. Walter prefers giving 1.2 Gm. daily for two days and if this is well tolerated, he increases the dose to 2.4 Gm. daily for two days. If necessary, and if the sulfamilamide is being taken without untoward effects, the drug can then be gradually increased until 4.8 Gm. is reached. The above amounts of sulfanilamide are usually divided into four doses and given at four hour intervals with sodium bicarbonate, 10 grains. The purpose of the latter is to combat acidosis and ensure an alkaline urine which for optimum effects should approximate pH 7.5. Kenny and her associates have reported the results of treatment with sulfanilamide in forty-six cases of colon-bacillus pyelitis which occurred during pregnancy and the puerperium as well as before and after gynecologic operations. The preparation was administered orally in 0.5 or 0.6 Gm. doses three times a day for five to seven days. No other treatment was employed, nor was there any restriction of diet or fluids. In the sixteen patients with pyelitis of pregnancy the drug appeared to bring about a rapid remission of symptoms and sterilization of urine. Sulfanilamide is the drug of the moment in urinary antisepsis and will doubtless continue to hold an important place in the treatment of pyelitis in pregnancy. As is well known, however, it occasionally produces toxic effects and accordingly it would seem judicious to resort to it only when alkalis have failed, only when the hemoglobin and white-cell count can be carefully watched and only in the doses recommended.

Many cases of pyelitis of pregnancy formerly treated by drainage and lavage of the kidney pelvis are now successfully treated by the use of the drugs mentioned above. The indwelling catheter is not recommended because of the discomfort it produces and because occasionally it seems to stimulate labor pains.

Pituitary extract has been recommended by Miller, Ginsburg and Hofbauer. It increases the drainage of the kidney pelvis by increasing tone and peristalsis. 0.5 cc. of pituitary extract

is given every four hours. The contraindication to this treatment during pregnancy lies in the danger of producing labor. It is not a widely accepted method of treatment.

Termination of pregnancy in the presence of pyelitis is the treatment par excellence. The three main indications for interrupting pregnancy are: (1) Failure of the patient to improve after ten days of intensive treatment. (2) Involvement of the renal parenchyma as evidenced by persistent elevation of the blood non-protein nitrogen. (3) Extreme toxicity with lethargy and coma. As a rule, termination is best carried out by abdominal hysterotomy.

With the involution of the upper urinary tract postpartum and the consequent relief of urinary stasis, the infection eradicates itself in most cases, possibly in two-thirds. In the remaining one-third, the patient, if untreated, continues to harbor the infection. This fact makes plain the urgent importance of careful follow-up in these cases and the necessity of intensive postpartum treatment until two consecutive urine specimens are pus and bacteria free.



## GIANTS IN CALIFORNIA

A new study covering children of school age in California has recently been undertaken. The report of this study published in the bulletin of the Los Angeles Department of Physical Education reveals several interesting facts. (1) In the upper statures and ages of school children there is a definite increase in ratio of height to weight among California children. (2) Average weight for height in school children of lower statures and ages has not been altered by residence in California. (3) California school children of every age exceed in stature and weight any available published record of comparable groups elsewhere. (4) California school children born in that state exceed in stature and weight California school children born elsewhere of the same age. (5) There is a definite positive correlation between length of body and length of stay in California when recorded in "five-year-periods" with any school age.—*Cal. & West. Med.*, May, 1938.

# Experimental Observations on the Treatment of Hypertension\*

HARRY GOLDBLATT, M.D.  
Cleveland, Ohio

By constricting the main arteries that supply the kidneys with blood, the author and collaborators have succeeded in producing prolonged elevation of blood pressure (hypertension) in dogs and monkeys which resembles so-called essential hypertension, by far the most common type which occurs in man. Some of the animals have had hypertension for more than five years. The type of hypertension which results depends upon the degree of constriction of the main renal arteries by means of the special clamps provided for the purpose. When this is moderate, there is no accompanying disturbance of kidney function and the experimental hypertension resembles the benign phase of human hypertension. When the constriction is severe, there is reduced function of the kidneys, leading to fatal uremia. This resembles the malignant phase of human hypertension.

The successful experimental production of hypertension in animals has made it possible for the author and other investigators to test the effect on this type of hypertension of various types of medical and surgical treatment that have been proposed for hypertension in man.

The usual medical treatment consists of rest, diet and drugs. In animals, physical rest, accomplished by restriction of activity, and mental rest, accomplished by training, have failed to prevent the development or reduce this type of experimental hypertension. The experiments on diet have not so far been very extensive but, up to the present time, restriction of the amount of protein and restriction of the amount of salt, two methods that are advocated by some for human beings with essential hypertension, have failed to affect this type of hypertension. Of the drugs usually employed for the treatment of high blood pressure in man, a few have been tested. The nitrites produced the same fleeting effects that they do in man. Thiocyanate pro-

duced a drop of blood pressure only when the concentration of the cyanate in the blood was at a level which produced untoward symptoms, such as loss of appetite and vomiting. When the drug was discontinued, the blood pressure returned to the original high level. Of the various organic preparations that have been made for the treatment of hypertension, only one was tested: an extract of pancreas, supposed to be very efficacious for human hypertension. This had no effect whatsoever on the blood pressure of an animal that had had hypertension for several years.

Various surgical procedures on the nervous system have been advocated and employed for the cure of hypertension in man. All of these and others have been tried on the animals but have failed to prevent the development or reduce this type of experimental hypertension. In animals, in addition to denervation of the kidney, excision of the splanchnic nerves and section of the anterior nerve roots from the sixth dorsal to the second lumbar, total sympathectomy and even destruction of the spinal cord have been practiced without any effect in preventing or reducing the hypertension. This is not to be interpreted as controverting in any way the reports of the beneficial effects obtained by these procedures in some cases of human hypertension. These surgical procedures cannot in any way affect rigid metal clamps on the main vessels of the kidneys, which are the cause of the experimental hypertension. When these clamps are released or removed, the blood pressure falls to normal. *What these experiments do indicate* is that the beneficial effects that have been reported by the surgeons employing different operations on the nervous system may all be due to one cause; namely, the improvement of the circulation through the kidneys. In man, this may be possible, because the main renal

\*Abstract of paper presented before the 14th Clinical Congress, Connecticut State Medical Society, New Haven, September 20, 1938.



vessel is not diseased, as a rule, and the smallest arteries (arterioles) that are not organically in a fixed state might possibly dilate as a result of the removal of the constrictor influence of the nervous system.

The only procedure so far which has successfully prevented or lowered this type of hypertension has been the complete removal of both adrenal glands. Partial bilateral adrenalectomy, which has been practiced on man, has no effect on experimental hypertension. Even when only a small portion of the cortex of one adrenal gland was left, the blood pressure still rose when the renal arteries were constricted. It would seem futile therefore to tamper with the adrenal glands, either by surgery or by X-ray, for the cure of hypertension, because the reduction of the amount of these glands close to the level which might result in Addison's disease or fatal acute adrenal insufficiency, is still unable to prevent or permanently to lower hypertension that is due to renal ischemia. Complete bilateral adrenalectomy is a surgical procedure which invariably proves fatal, so it cannot be practiced on man.

The results of experiments on the effect of partial and complete adrenalectomy and other experiments indicate that the cause of this type of experimental hypertension and, possibly, of hypertension in man, is a renal factor and that it is humoral (i.e., some substance circulating in the blood) rather than some nervous reflex from the kidney. So far, the hypothetical effective substance has not been demonstrated in the blood but several investigators have been able to isolate a greater quantity of substance from ischemic kidneys than from normal kidneys which produces elevation of blood pressure when injected into other animals.

One interesting practical application of this work has been the cure of hypertension in some children and adults by the removal of a single kidney which was the seat of inflammation or disease of the blood vessels, or both, and which seems to have been the cause of the hypertension,

in the same way that clamping of one renal artery in a dog may cause elevation of blood pressure which returns to normal when the kidney is removed.

An obvious surgical therapeutic procedure which suggests itself as a result of this work is the possible cure of the hypertension by improvement of the circulation to the kidneys. Unfortunately, although this can be accomplished in the animals in which the main renal artery is constricted, it may have little use in man because the disease process affects the arterioles, so that the production of collateral circulation to the larger vessels would do no good. However, the value of this procedure will never be known unless it is actually tried.

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#### RELATION OF MOTTLED ENAMEL TO CHILD DEVELOPMENT IN OKLAHOMA PANHANDLE

Chronic fluorine poisoning causing a defective formation of the enamel of the teeth has been shown by Blue (Jour. Okla. State Med. Assoc., Sept., 1938) to be definitely related to child development. This chronic fluorine intoxication predisposes to underweight, poor posture, rickets and orthopedic conditions. Mottled enamel cases show a high incidence of dental caries, gingivitis, malocclusion, beginning pyorrhea and poor oral hygiene.

—☆☆—

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A four point program favoring tax support for hospitals, augmented state and federal aid in eradication of certain diseases, consistent medical care for the underprivileged, and a reasonable assured income for practising physicians, especially in poverty stricken or sparsely settled sections of the country, is advocated in "Medicine in Modern Society", just off the press. The author is David Riesman, M.D., professor of the history of medicine and of clinical medicine in the University of Pennsylvania.

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# When Should A Person With Syphilis Marry?

DANIEL E. SHEA, M.D.  
Hartford, Conn.

The marriage of a person with syphilis has long been a problem to the physician treating such cases. Since the enactment of the Connecticut Marriage Law, more cases which require his decision as to fitness for marriage, are being discovered. This decision must consider not only the medical and legal aspects of the case, but also the social welfare of the individuals and the community.

## Legal Status of Marriage

Scandinavian countries have long had laws requiring freedom from venereal diseases in the contracting parties. In this country a number of states make venereal diseases a bar to marriage. Ten states provide penalties for the marriage of a person knowingly infected with a venereal disease. The offense ranges from a misdemeanor to a felony. The marriage of such a person is void in Utah, and is grounds for annulment in Utah, Michigan, New Hampshire, Wisconsin, and Vermont. Transmission of a venereal disease is cause for divorce in a number of states under the interpretation of "cruelty" by courts. In Connecticut the responsibility for allowing infected persons to marry is placed directly upon the physician. The marriage law requires that a blood test for syphilis be performed in a state-approved laboratory, and that the physician certify "that in his opinion the person is not infected with syphilis or in a stage of that disease that may become communicable."

A negative blood test will allow certification, providing the person examined is not suffering from an early or prepositive stage of the disease. This is generally referred to as the seronegative stage. A physical examination would eliminate this possibility. It is in those persons who show a positive reaction and whom the physician has never treated for syphilis that a grave responsibility is assumed, if allowed to marry without treatment. Assurance of continued treatment following marriage should not sway the physician in his decision. With marriage there will be added financial responsibilities, which often

result in the patient's inability to continue the treatment.

Disruption of wedding plans is not as disconcerting as a disastrous marriage. Postponement until adequate treatment has been received should be the course to follow. The practice of certifying a person for marriage with the understanding that he will continue treatment should be discouraged. Many had probably lapsed treatment previously, and after marriage they are likely to go the easiest way and neglect treatment again. It is difficult to compel a person to take treatment, if his physician has already certified that he is not in a stage that may become communicable and is safe to marry. An arrestment of the disease is the only surety for safe marriage of a person with syphilis.

## Social Responsibility

Transmission of the disease to the marital partner, while the most important, is not the only issue in weighing fitness to marry. In the male particularly, acquiring syphilis automatically induces a certain inescapable risk of future breakdown. At least 10 per cent of syphilitic husbands develop clinical neurosyphilis, and about 15 per cent develop cardiovascular lesions under average conditions of modern treatment. The families of such patients may become a financial burden to the community, to say nothing of the social loss entailed by the removal of parental influence. The younger the syphilitic patient who seeks marriage, and the less prepared he is economically to meet the risk of complications, the more cautious should the physician be in sanctioning the establishment of a family.

Therefore, fitness for marriage varies, first, with the duration of the disease in the infected party; second, with sex, women being always less eligible than men, and third, with the course of the individual infection. Each case should be judged solely on its merits — and generally will be found unfavorable. The physician is confronted with a grave responsibility when he de-

\*Director, Bureau of Venereal Diseases, Hartford Board of Health.



cides to allow a person with a positive serological test for syphilis to marry. With no open lesion, is it proper for him to judge cases non-communicable and certify the marriage? Should he not first consider the possibilities of "mucous relapses", neurosyphilis, serological recidivists and fixed positives before placing his approval on the marriage? The weight of authority places the responsibility upon him. Such a view has been expressed by Stokes.

#### Partner Must Know Facts

Any plan for the control of infectiousness in any marriage must start on the basis that the marrying partner be fully informed as to the present condition and also the future possibilities. Stokes very ably states the case in the following words: "It is unconscionable social and medical short-sightedness, to say nothing of unpardonable cruelty and dishonesty, to sanction any withholding of the facts from the woman or man who is asked to take the risks inseparable from our only too patent ignorance and fallibility."

#### Decision In Treated Persons

Before deciding the course to follow in allowing a patient with syphilis to marry, it is well to scan the results of studies made by the following authorities: Fournier writes that 75 per cent of syphilitic married women coming under his observation acquired the disease from their husbands, while Bulkley found 82 per cent of his women patients were married; Blaisdel in his studies places the figure at 79 per cent and Solomon claims 76 per cent in his patients.

The period of married life in which the disease is transmitted to the partner cannot be exactly defined. However, the first five years is generally conceded to be the most dangerous period. Fournier found that 98 of 142 women (70 per cent) were infected during the first three years of their husbands' disease while 26 per cent became infected within the first year. Keyes places the odds as 12 to 1 for the first year, 5 to 2 the second year, 1 to 4 the third year in cases of untreated husbands. In Strandberg's study of 250 marriages, where syphilis was present in one partner, only 27.6 per cent escaped all consequences in married life. In 58 of these cases the duration of the disease was unknown and 41 per cent transmitted the disease to the partner. In his group the disease was transmitted in 20 per cent later than the fifth year, which is a

somewhat higher percentage than that of the other authorities.

At various times minimum standards of treatment have been set up by groups in this and other countries. Conservative European opinion was first summarized by the Hoffmann rule which calls for three years of treatment with arsphenamine and a heavy metal followed by two years of symptom-free observation before marriage. Today's interpretation of symptom-free observation would include repeated negative blood and spinal fluid from the end of the first six months.

A French Commission differentiated between serologically positive and seronegative primary syphilis. If treatment was started before the blood became positive, one year of treatment was required followed by one year of observation if treatment was instituted after the blood was positive, two years of treatment was necessary followed by the observation period. If the blood was positive after two years of treatment, the patient was allowed to marry providing the spinal fluid was negative. A positive spinal fluid or other evidence of neurosyphilis was accepted as a definite bar to marriage requiring more extensive treatment. In our own country similar provisions were adopted as early as 1920 by the All-American Conference on Venereal Disease at Washington.

Other groups have set up similar standards, all of which compare favorably with the original Hoffmann rule. Stokes places the requirements in early syphilis as two to three years of intensive treatment with arsphenamines and heavy metals, preferably continuous. This to be followed by two more years of observation. The spinal fluid must have been negative long enough (from the sixth month) to convince one that the danger of neurosyphilis has been completely overcome. The cardiovascular examination must be negative in the fifth year.

It will be noted that the importance of the spinal fluid examination is emphasized in all the above standards. Just as important is the time for making this examination, namely from the sixth month of treatment. Consideration is also given to the cardiovascular system, demonstrating that these groups considered thoroughly the importance of the social responsibility to the community in setting up their standards.

As an aid to the practicing physician, the Connecticut State Department of Health has

offered the following guide for determining communicability. Following is in part a copy of a letter issued to the physicians of the state on February 16, 1938.

"The diagnosis of syphilis having been made, the certificate is signed only when the case in question is not "in a stage of that disease that may become communicable". Therefore, the criteria of communicability is the all important factor. A four plus Wassermann does not necessarily mean the case is communicable.

In general communicability of syphilis depends on the following:

1. The stage of syphilis:
  - (a) Primary syphilis — communicable in both sexes.
  - (b) Secondary syphilis — communicable in both sexes.
  - (c) Primary, secondary and tertiary syphilis in the female — communicable to offspring.
2. Duration of syphilis:
  - (a) Greatest danger lies in the first two years of syphilis. Not considered communicable after five years duration, as a rule.
3. Amount of treatment:
  - (a) The arsphenamines, 20 injections as a minimum, are essential in controlling communicability. No other drug will do to control infectiousness. Bismuth is an important adjunct. A minimum of 18 months continuous treatment is advised.
  - (b) Additional continued treatment is required for cure.

Success of treatment depends upon:

- (1) Reliability of patient to cooperate.
- (2) In all cases, including marriage license cases, lapsing treatment should be followed up.
- (3) Such cases are reportable to the health officer by name and address."

In the above standards of the state, it will be noted that emphasis is placed on the statement that the certificate is to be signed only when the case in question is not "in a stage of that disease that may become communicable". Also it must be noted that the minimum amount of treatment as prescribed is only to control communicability or render the persons non-infectious for the time being. In addition 18 months of con-

tinuous treatment should be insisted upon for cure of early syphilis.

### Conclusion

Each case of syphilis should be considered individually in determining fitness for marriage. Consideration must be given to the duration of the disease and the sex of the infected person. Women are less eligible than men, and if they do marry, it must be with the assurance that they will take treatment throughout their pregnancy, regardless of the blood reaction. Also of importance is the amount of treatment received by the infected person, using the Hoffmann rule, American Standard or Stokes as a minimum. The final consideration should be given to the economic responsibilities of the marrying persons, as well as the social rights of the community. Young and recently infected partners with a prospect of children and an insecure economic future would certainly be less eligible than elderly, non-infectious individuals who are economically comfortable and beyond the child-bearing period. The standards of communicability as set up by the Connecticut State Department of Health may be followed, if the physician is assured that the patient will cooperate. Also, the physician must be willing to follow the case and report it to the Health Officer in case of lapsed treatment.

There are cases, of course, where because of legal entanglements, the physician may conscientiously disregard any of the usual standards and certify a person for marriage. For example, this may happen in order to prevent illegitimacy or in legalizing common law marriages.

The practicing physician may also have under his care other cases that will not require such stringent standards; however, at no time should the inconvenience of a postponed marriage interfere with the certifying physician's judgment, and just as exacting should be the duty of the Judge of Probate who has the power to waive the Blood Test Law.

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### SCIENTIFIC EXHIBIT

#### AMERICAN MEDICAL ASSOCIATION

Application blanks are now available for space in the Scientific Exhibit at the St. Louis Session of the American Medical Association, May 15-19, 1939. Attention is called to the fact that the meeting is a month earlier than usual, and applications close January 5, 1939. Blanks will be sent on request to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn St., Chicago, Ill.



## Hypoglycemic and Metrazol Treatment of Dementia Praecox\*†

RICHARD GOLDSTEIN, M.D.

New Haven, Conn.

In 1934 Dr. Manfred Sakel<sup>1</sup> reported remissions in cases of schizophrenia induced by repeated periods of severe insulin hypoglycemia. In 1936<sup>2</sup> he reported a series of 104 patients, 58 early and 46 old cases. In the early cases he observed 88%, and in the old cases 47% good remissions.

If such results could be consistently repeated, they would represent a great advance in therapy. But their evaluation is very difficult. To begin with we do not know accurately what it is that we are treating. Cases vary, forming a large and not always homogeneous group. The diagnosis varies in its latitude from clinic to clinic so that results from one place often cannot be compared with those from another. One wishes to institute treatment early, but it is frequently impossible to make an early diagnosis, and in a few cases only after some years can one be sure as to the course and nature of the disease. The fact that 30 to 50% of all cases diagnosed schizophrenia have spontaneous remissions, some of life-long duration, must also be taken into account in any statistical evaluation. And further, it has long been known that the occurrence of a severe infectious illness in a schizophrenic patient may cause the mental symptoms to disappear for a time. The barbiturates, especially sodium ethyl-iso-amyl barbiturate (sodium amytal), and periods of hypernoea induced by breathing CO<sub>2</sub> and O<sub>2</sub> have brought about intervals of fair health, and convulsions from metrazol have had a similar effect.

Sakel describes his technique briefly as follows<sup>3</sup>: "The patient is given increasing doses of insulin until the so-called shock dose is reached. By shock dose we understand that amount which in any individual produces deep coma with areflexia" (or convulsions — dry shock) "within 4-5 hours after one injection. The size of this

dose varies considerably in different individuals and may be anything from 15-450 units. The initial dose varies from 15-50 units a day and the dose is increased by 5 to 20 units daily until the shock dose is reached. A shock dose is given 3 to 6 times a week until the desired result is obtained, but if the patient does not respond, no more than 50 injections need be given. The insulin injection is always given fasting and is followed in 4-5 hours by a sufficient amount of carbohydrates". After this phase of treatment has been maintained a certain length of time, the coma is shortened by decreasing the quantity of insulin or by earlier administration of carbohydrates. Individual variations in treatment have to be made continuously.

The symptoms of insulin shock may be divided into those arising from the autonomic system, the motor system, and the sensorium. Variations of pulse rate and blood pressure, a drop in temperature, generally to around 97.5,<sup>0</sup> perspiration and salivation, pallor and flushing are common. The drop in temperature and profuse perspiration and salivation are the best indication of shock. Motor symptoms vary considerably. At first there is generally restlessness — in some patients this increases to violent excitement which may reappear when the patient is coming out of coma. Most patients gradually go into a state of coma, during which there is increased muscle tone and irritability with pathological reflexes. The disturbances of consciousness start with sleepiness; then comes sleep from which the patient may be aroused, later he cannot be aroused and is in coma.

The indications for terminating treatment are many: a severe convulsion, laryngospasm, or generalized extensor rigidity; any symptom or sign of impending cardio-respiratory failure, such as tachycardia late in coma, Cheyne-Stokes

\*From The Department of Psychiatry and Mental Hygiene, Yale University, School of Medicine.

†Read at the 14th Clinical Congress, Connecticut State Medical Society, New Haven, September 20-22, 1938.

respiration, or a sudden fall in blood-pressure. One does not treat patients with coronary disease or other weakening systemic conditions, and this form of treatment should only be carried out within a hospital, by a group of physicians and nurses giving it their whole time and attention.

What are the results of treatment? As already indicated this is most difficult to estimate. Muller<sup>4</sup> reported 495 patients treated in 22 Swiss institutions. There were remissions in 59% of the early cases and in 18% of the late cases. Marzynski<sup>5</sup> in Poland found "in very early cases, where the diagnosis is inaccurate, the results are better than the untreated — the average results, however, are about the same as untreated cases". In this country Ross<sup>6</sup> reported 127 patients treated in N. Y. State hospitals. 35 patients made good remissions and 23 improved. Katzenelbogen<sup>7</sup> reported on 16 patients treated in the Phipps Clinic in 1937: 6 patients had good remissions and 4 improved. He notes that of the 6 patients who had remissions 4 remained well 6, 3, 2, and 2, months after treatment. To date there has not been reported a large unselected group of cases with an equally large unselected control group. Recently a follow-up study of 500 schizophrenic patients has been reported by Cheney<sup>8</sup> from Bloomingdale Hospital. Treatment was non-specific — along conservative psychiatric principles. Of 214 patients, who had been ill 6 months or less before hospitalization, 48% were improved or recovered 2-12 years later. Whether insulin offers results better than this remains to be determined.

About the physiology and pathology of hypoglycemic coma and convulsions little is known. Himwich<sup>9</sup> found the oxygen utilization of the brain greatly decreased. In animals overdosage with insulin causes a marked decrease in the sugar content of the brain — apparently due to an increased utilization of carbohydrate in the brain itself. In animal experiments (cats and rabbits) Zimmerman<sup>10</sup> found a marked loss of ganglion cells — this in animals that failed to convulse but had a low blood sugar.

A somewhat similar form of treatment, that of producing convulsive seizures with metrazol (pentamethylentetrazol) was reported by v. Meduna in 1935<sup>11</sup>. Meduna at first used camphor suspended in oil but later found metrazol more reliable. A 10% solution of this drug is rapidly injected intravenously. One begins with a dose of 3 cc. increasing the dose as neces-

sary. Following the rapid injection of metrazol the patient generally has, within a few seconds, a seizure essentially identical in appearance with the grand mal attack of epilepsy. During the seizure one takes all possible precautions against the patient's injuring himself physically (dislocate his jaw, bite his tongue) and one is prepared to treat any medical emergency that may arise. The duration of the average seizure is about 40". The general practice is to give metrazol 3 alternate days a week. As the duration of each treatment is brief, a physician with a nurse and two attendants can treat a number of patients in one morning or afternoon. The contraindications for metrazol are essentially the same as those for insulin.

von Meduna first reported an improvement in 10 and a temporary improvement in 3 out of 26 patients or 50% improvement<sup>11</sup>. He later reported 110 cases — 54 underwent remissions, and 54 remained unchanged. Results approximating this have been reported by other workers. The length and permanency of such remissions are, of course, not yet known.

It is too early to draw any conclusions about insulin or metrazol therapy. Whether or not they offer advantages over other procedures we do not yet know. We have no idea how long the remissions induced by insulin or metrazol last and whether the future course of the disease is favorably or unfavorably influenced thereby. The sequelae are similarly still uncertain — how much cortical damage occurs in man<sup>12</sup>, if any, has not been determined except in a few cases coming to autopsy. The initial enthusiasm has fortunately given way to a definitely critical attitude, and a great deal of work remains to be done in evaluating the entire problem.

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## A Survey of the Prevalence of Syphilis and Gonorrhea in the State of Connecticut\*

MARY HARKIN, M.P.H., JOSEPH I. LINDE, M.D.  
New Haven, Conn.

A one-day prevalence study of the number of cases of syphilis and gonorrhea under treatment in the State of Connecticut was undertaken by the Connecticut State Medical Society in an attempt to obtain a more accurate picture of the actual prevalence of venereal disease in the State.

### Method

A questionnaire was sent to each member of the State Medical Society and to all hospitals, clinics and treatment stations in the State. The questionnaire was simple and direct. The questions asked were: "Number of cases of syphilis actively under treatment or observation on November 10, 1937," and "Number of cases of gonorrhea actively under treatment or observation on November 10, 1937." The information given in answer to these questions was to be subdivided according to sex and stage of infection on admission to treatment. The syphilis cases were to be divided into congenital, primary, secondary and tertiary. The gonorrhea cases were to be divided into acute and chronic, acute cases being defined as those in which three months or less had elapsed since the approximate date of infection.

In addition, the doctors were encouraged to submit any comments they might care to make on venereal disease control in Connecticut. A summary of these comments has been published in a previous issue (June, 1938) of the Journal of the Connecticut State Medical Society.

Each physician and institution was requested to return the completed questionnaire. No additional follow-up was done to receive returns so that the success of the study depended entirely upon the doctors' and institutions' willingness to cooperate.

### Results

At the outset it should be stated that the statistics obtained and here presented have no

pretense to accuracy or completeness because of the disappointingly small number of physicians who responded to the questionnaire. Because of this no dogmatic statements may be made nor definite conclusions drawn from the survey. It might be assumed (1) that those physicians not answering did not do so because they had no cases to report, or (2) that the physicians reporting are a representative sample and had the remaining physicians answered they would have reported cases at a similar rate. The true situation probably lies somewhere between these two assumptions, although it is impossible to support this opinion with objective proof, and all that can be said is that answers were probably received from one-half to two-thirds of the physicians who had cases under treatment. Thus, with this fact to be kept in mind, the following figures are presented for what value they may have in approximating the true situation. No effort has been made to analyze the figures for individual counties.

Of the 1650 physicians to whom questionnaires were sent only 621 or 37.6% replied. (Table I.) Litchfield County showed the highest percentage replying with 49.3% and New London County the lowest with 25.4%. Of the 89 clinics, hospitals and treatment stations sent questionnaires 74 or 83.1% replied. One hundred per cent cooperation should be expected from these sources. Results of other surveys indicate that it is possible to obtain considerably higher response even with little or no follow-up.

Of the total 621 physicians of the State who cooperated in the investigation 417 or 67% reported cases of syphilis or gonorrhea or both under treatment, while 71 of the 74 clinics, etc., reported cases under treatment. This is a comparatively high percentage of doctors with cases under treatment. (Were we attempting to

\*Survey conducted by Public Health Committee, Connecticut State Medical Society, with cooperation of County Committees. Acknowledgment is made to Dr. J. H. Watkins, Assistant Professor of Public Health of the Yale School of Medicine, for assistance in the preparation of tables.

TABLE I  
Percentage of Questionnaires Returned

	Physicians Mailed Quest.	Replies Received	% Quest. Returned	Clinics Etc. Mailed Quest.	Replies Received	% Quest. Returned
Connecticut	1650	621	37.6	89	74	83.1
Fairfield	326	108	33.1	16	15	93.8
Hartford	504	223	44.2	22	20	90.9
Litchfield	69	34	49.3	9	6	66.7
Middlesex	64	22	34.4	8	4	50.0
New Haven	501	160	31.9	17	17	100.0
New London	122	31	25.4	11	8	72.7
Tolland	25	11	44.0	2	1	50.0
Windham	39	16	41.0	4	3	75.0
County Unknown		16				

analyze or interpret these data with refinement this might be taken as an indication that those doctors not replying were those without cases under treatment.) Of the total physicians reporting cases, 15% had no syphilis and 37% no gonorrhea under care. (Table II.).

TABLE II  
Distribution of Cases

	Number Replying	Private Physicians					
		Number Reporting Cases		Number Reporting No Syphilis		Number Reporting No Gonorrhea	
		No.	%	No.	%	No.	%
Connecticut	621	417	67	61	15	153	37
Fairfield	108	66	61	13	20	24	36
Hartford	223	165	74	16	10	53	32
Litchfield	34	29	85	6	21	10	34
Middlesex	22	10	46	1	10	3	30
New Haven	160	95	59	16	17	46	48
New London	31	22	71	0	0	8	36
Tolland	11	7	64	1	14	3	43
Windham	16	10	63	5	50	1	10
County Unknown	16	13	81	3	23	5	38

Table III shows the total number of cases reported classified according to disease and source of report.

It may be seen that 4463 cases of venereal disease were reported as under treatment or observation in Connecticut on November 10, 1937, 3385 of which were syphilis and 1078 gonorrhea cases. Of these 3385 cases of syphilis, 2279 were treated by clinics, etc., and 1106 by the private doctors, while of the 1078 gonorrhea cases 389 were treated by the clinics, etc., and 689 by the private practitioners. This may be taken as evidence of the influence of the financial factor

in determining whom the patient will consult for the lengthy, costly treatment of syphilis.

This situation is further illustrated by the fact that the private physician treats 1.61 cases of syphilis per case of gonorrhea, whereas the clinics, etc., treat 5.86 cases of syphilis per case of gonorrhea. Or to state it in a different manner, for every case of syphilis treated by the private doctor the clinics, etc., treat 2.06 cases while for every case of gonorrhea treated by the private doctor the clinics, etc., treat .57 cases. (Table IV.).

Bearing in mind the incompleteness of the



TABLE III

	Cases of Syphilis			Cases of Gonorrhea			Total Syphilis & Gonorrhea
	Reported by Private Physicians	Reported by Clinics, Etc.	Total	Reported by Private Physicians	Reported by Clinics, Etc.	Total	
Connecticut	1106	2279	3385	689	389	1078	4463
Fairfield	177	421	598	154	64	218	816
Hartford	315	663	978	152	158	310	1288
Litchfield	56	29	85	60	3	63	148
Middlesex	21	147	168	12	14	26	194
New Haven	353	880	1233	221	115	336	1569
New London	106	125	231	35	32	67	298
Tolland	8	2	10	5	0	5	15
Windham	44	12	56	35	3	38	94
County Unknown	26		26	15		15	41

TABLE IV

	Cases of syphilis per case of gonorrhea as reported by private physicians	Cases of syphilis per case of gonorrhea as reported by clinics, etc.	Cases of syphilis treated by clinics, etc., per case of syphilis treated by priv. phys.	Cases of gonorrhea treated by clinics, etc., per case of gonorrhea treated by priv. phys.
Connecticut	1.61	5.86	2.06	0.57
Fairfield	1.15	6.58	2.38	0.42
Hartford	2.07	4.20	2.10	1.04
Litchfield	0.93	9.67	0.52	0.05
Middlesex	1.75	10.50	7.00	1.17
New Haven	1.60	7.65	2.49	0.52
New London	3.03	3.91	1.18	0.94
Tolland	1.60	infinity	0.25	0.00
Windham	1.26	4.00	0.27	0.60
County Unknown	1.73		0.00	

fundamental data the following rates of prevalence are presented:

TABLE V  
Rate of Prevalence of Syphilis and Gonorrhea per 1,000 Population

	Population	Cases of Syph. per 1,000 pop.	Cases of G. C. per 1,000 pop.	Cases of Syph. & G. C. per 1,000 pop.
Connecticut	1,766,947	1.92	0.61	2.53
Fairfield	433,429	1.38	0.50	1.88
Hartford	481,818	2.03	0.64	2.67
Litchfield	87,007	0.98	0.72	1.70
Middlesex	54,009	3.11	0.48	3.59
New Haven	497,718	2.48	0.68	3.15
New London	129,116	1.79	0.52	2.31
Tolland	29,674	0.34	0.17	0.51
Windham	54,086	1.04	0.70	1.74
County Unknown				

Thus, for the State we have a rate for syphilis of 1.92 cases per 1,000 population, for gonorrhea a rate of .61 per 1,000 population, and for both venereal diseases a rate of 2.53 per 1,000 population. These rates are extremely low.

Table VI shows the ratio of syphilis to gonorrhea cases.

**TABLE VI**  
**Ratio of Syphilis to Gonorrhea Cases**

	Syphilis Cases per Cases of Gonorrhea
Connecticut	3.14
Fairfield	2.74
Hartford	3.15
Litchfield	1.35

Middlesex	6.46
New Haven	3.67
New London	3.45
Tolland	2.00
Windham	1.47
County Unknown	1.73

This ratio, 3.14 cases of syphilis per case of gonorrhea, is comparatively high and while ostensibly pointing to a greater infection of syphilis than gonorrhea should, it is felt, be interpreted as indicating rather sample unreliability.

Table VII shows cases divided according to sex distribution. It will be noted that 53.3% of syphilis cases were males and 46.7% were females, while 68.7% of gonorrhea occurs in males and 31.3% in females.

**TABLE VII**  
**Cases of Syphilis and Gonorrhea According to Sex**

	Syphilis				Gonorrhea			
	No.	Male %	No.	Female %	No.	Male %	No.	Female %
Connecticut	1804	53.3	1581	46.7	741	68.7	337	31.3
Fairfield	342	57.2	256	42.8	165	75.7	53	24.3
Hartford	526	53.8	452	46.2	231	74.5	79	25.5
Litchfield	51	60.0	34	40.0	47	74.6	16	25.4
Middlesex	110	65.5	58	34.5	8	30.8	18	69.2
New Haven	633	51.3	600	48.7	223	66.4	113	33.6
New London	94	40.7	137	59.3	30	44.8	37	55.2
Tolland	6	60.0	4	40.0	5	100.0	0	0.0
Windham	30	53.6	26	46.4	24	63.2	14	36.8
County Unknown	12	46.2	14	53.9	8	53.3	7	46.7

Table VIII shows the cases of syphilis under treatment in Connecticut divided according to stage of infection upon admission to treatment.

**TABLE VIII**  
**Total Syphilis Divided According to Stage of Infection**

	Congenital		Primary		Type of Infection				Unknown		Total
	No.	%	No.	%	Secondary	%	Tertiary	%	No.	%	
Connecticut	521	15.4	103	3.0	318	9.4	2040	60.3	403	11.9	3385
Fairfield	131	21.9	17	2.8	34	5.7	416	69.6	0	0	598
Hartford	97	9.9	44	4.5	117	12.0	720	73.6	0	0	978
Litchfield	13	15.3	7	8.2	8	9.4	57	67.1	0	0	85
Middlesex	14	8.3	0	0.0	7	4.2	147	87.5	0	0	168
New Haven	187	15.2	28	2.3	79	6.4	536	43.5	403*	32.7	1233
New London	64	27.7	4	1.7	45	19.5	118	51.1	0	0	231
Tolland	5	50.0	0	0.0	1	10.0	4	40.0	0	0	10
Windham	7	12.5	2	3.6	26	46.4	21	37.5	0	0	56
County Unknown	3	11.5	1	3.9	1	3.9	21	80.8	0	0	26

\*Note the large unknown group in New Haven which must be taken into consideration in examining these figures.



It is important to note that in the State of Connecticut 15.4% of all syphilis cases under treatment are of the congenital type. In view of the fact that congenital syphilis can be wiped out by the simple procedure of insuring a Wassermann for every pregnant woman before the fifth month of pregnancy and treatment where called for, this incidence of congenital syphilis in Connecticut calls for thought and action on the part of the medical profession as a whole.

Further cause for concern is the low percentage of cases coming to treatment in the primary and secondary stages of the disease — only 3% of cases come for treatment in the primary and

9.4% in the secondary stages. Thus, 60.3% of all syphilis does not come to treatment until the early infections, and also most curable stages, have past.

Table IX shows these data, the cases of syphilis divided according to stage of infection upon admission to treatment, separately for the private physicians and the clinics, etc. As might be expected, the private doctors see a higher percentage of cases in the primary and secondary stages — 4.8% of the private doctors' cases are in the primary stage and 2.2% of the clinics' cases, 15.7% of the private doctors' cases are in the secondary stage and 6.3% of the clinics' cases.

TABLE IX

Cases of Syphilis divided according to stage of infection upon admission to treatment

	Congenital		Treated by Private Physicians				Tertiary	
	No.	%	Primary No.	%	Secondary No.	%	No.	%
Connecticut	136	12.3	53	4.8	174	15.7	743	67.2
Fairfield	30	17.0	8	4.5	15	8.5	124	70.1
Hartford	29	9.2	20	6.4	40	12.7	226	71.8
Litchfield	7	12.5	6	10.7	6	10.7	37	66.1
Middlesex	3	14.3	0	0.0	5	23.8	13	61.9
New Haven	51	14.5	13	3.7	59	16.7	230	65.2
New London	5	4.7	3	2.8	27	25.5	71	67.0
Tolland	4	50.0	0	0.0	1	12.5	3	37.5
Windham	4	9.1	2	4.6	20	45.5	18	41.0
County Unknown	3	11.5	1	3.9	1	3.9	21	80.8

	Congenital		Treated by Clinics, Etc.				Unknown	
	No.	%	Primary No.	%	Secondary No.	%	Tertiary No.	%
Connecticut	385	16.9	50	2.2	144	6.3	1297	56.9
Fairfield	101	24	9	2.1	19	4.5	292	69.4
Hartford	68	10.3	24	3.6	77	11.6	494	74.5
Litchfield	6	20.7	1	3.5	2	6.9	20	69.0
Middlesex	11	7.5	0	0.0	2	1.4	134	91.2
New Haven	136	15.5	15	1.7	20	2.3	306	34.8
New London	59	47.2	1	0.8	18	14.4	47	37.6
Tolland	1	50.0	0	0.0	0	0.0	1	50.0
Windham	3	25.0	0	0.0	6	50.0	3	25.0
County Unknown								

Table X shows the stage of infection of the gonorrhea cases upon admission to treatment. (An acute case was defined as any case in which three months or less had elapsed since time of infection.) It will be noted that 48.1% of the cases are acute and 51.9% chronic upon admis-

sion to treatment. Little difference is noted in the situation with the patients of the private doctors and the clinics; (Table XI) 46.7% of cases treated by the doctors are acute and 50.4% of cases treated by clinics, etc., are acute.

**TABLE X**  
**Cases of Gonorrhea divided according to Stage of Infection**

	Acute		Chronic		Total
	No.	%	No.	%	
Connecticut	518	48.1	560	51.9	1078
Fairfield	114	52.3	104	47.7	218
Hartford	161	51.9	149	48.1	310
Litchfield	35	55.6	28	44.4	63
Middlesex	5	19.2	21	80.8	26
New Haven	171	50.9	165	49.1	336
New London	15	22.4	52	77.6	67
Tolland	3	60.0	2	40.0	5
Windham	10	26.3	28	73.7	38
County Unknown	4	26.7	11	73.3	15

**TABLE XI**  
**Cases of Gonorrhea divided according to Stage of Infection upon Admission to Treatment**

	Under Treatment by Private Physicians				Under Treatment by Clinics, etc.			
	No.	Acute %	No.	Chronic %	No.	Acute %	No.	Chronic %
Connecticut	322	46.7	367	53.3	196	50.4	193	49.6
Fairfield	77	50.0	77	50.0	37	57.8	27	42.2
Hartford	98	64.5	54	35.5	63	39.9	95	60.1
Litchfield	34	56.7	26	43.3	1	33.3	2	66.7
Middlesex	3	25.0	9	75.0	2	14.3	12	85.7
New Haven	83	37.6	138	62.4	88	76.5	27	23.5
New London	10	28.6	25	71.4	5	15.6	27	84.4
Tolland	3	60.0	2	40.0	0	0.0	0	0.0
Windham	10	28.6	25	71.4	0	0.0	3	100.0
County Unknown	4	26.7	11	73.3				

### Summary

The response to the questionnaires was disappointingly small, making a close interpretation of the results impossible. However, the following facts did evolve from the investigation:

1. Connecticut's syphilis and gonorrhea rate as determined from the figures provided is not high in comparison with other studies.

2. The clinics treat approximately twice as much syphilis as the private doctors, the ratio being 2.06 to 1, while the private doctors treat approximately twice as much gonorrhea as the clinics, the ratio being 1 to .57. The explanation of this probably lies in the fact that patients cannot afford to consult the private doctor for the long and costly treatment required for the

cure of syphilis.

3. Fifteen and four-tenths per cent, or 521, of all syphilis cases reported are of the congenital type. This makes one vital point at which the problem must be attacked.

4. Only 3% of the syphilis cases come to treatment in the primary stage and only 9.4% in the secondary stage. These are the stages most readily cured and at the same time most dangerous to the public health if untreated. Effort might well be placed to get more patients under treatment in the early stages of the disease.

5. Similarly, less than one-half, 48.1%, of the gonorrhea cases come to treatment in the acute stage, that is in three months or less from the time of infection.



# Endocrine Treatment of the Undescended Testicle\*†

CLYDE LEROY DEMING, M.D.

New Haven, Conn.

The hormonal treatment of the cryptorchid has passed through the experimental phase and is now being evaluated. As in the development of all new methods of medication, time is required, new experimental fields are opened and facts have to be correlated. Little was actually known about the descent of the testis. Many observations in nature have been made concerning the descent of the testes into the scrotum, and much experimental work has been done.

Man and chimpanzee are the only animals born with testes in the scrotum. In hibernating animals, such as the woodchuck, hedgehog and mole, the testes are drawn into the abdomen during the cold weather and are let down into the scrotum during the warm weather and the mating period. The gopher and chipmunk retain their testicles in the abdomen except during copulation. The migration of the testicles is a physiological action produced by some endocrine related to sex. John Hunter, nearly two hundred years ago, thought that the descent of the testis in man was accomplished by a repressive action of the cremaster muscle. Hart, who has done recent work on the rat kangaroo, and others who have experimented with the gonadotropic hormone in monkeys conclude that the hormone acts through the pituitary and testis on the cremaster muscle, which, in turn, pulls the testes into the scrotum. The gubernaculum is the "guy rope," not the actual force causing descent.

By nature we start our existence *in utero* as bisexual beings. There is a period for sex determination. The endocrine factors and forces of both sexes undoubtedly stage an intersexuality drama. The stronger of the two sex hormones produces its respective male or female being. When the two forces are nearly equal, a pseudo-hermaphrodite is produced; and, when equal, a true hermaphrodite. Both the ovary and the testis develop on the gonadal ridge. The ovary

remains within the abdomen, while the testis descends normally during the seventh or eighth month into the scrotum. The ovary loves a warm habitat. The testis, in order to produce spermatozoa, must be exposed to an environment which has a temperature several degrees lower than that of the peritoneal cavity. On a hot day, the scrotum relaxes and the testes hang lower. After a cold swim, the scrotum is tightly retracted. The scrotum acts as a definite thermo-regulator for the testis.

Experimental gonadotropic injection in the pre-adolescent rhesus monkey and in the human child produces the same reaction in the external genitalia. There is an enlargement of the foreskin and scrotum, accompanied by descent of the testes. A similar condition of the external genitalia is seen frequently in the new born male during the first five days of life and is due to an excessive amount of Prolan A. An histological study of tissues from the external genitalia of the monkey after injection of the hormone and descent of the testes shows the vas to be enlarged two or three times. Its longitudinal muscle fibers are hypertrophied; the lining epithelial cells are heaped up and are several layers deep. The vascularity of the cord is increased, and the muscular coats of the veins and arteries are thickened. The cremaster muscle is larger and thicker. In the individual who has a congenital intra-abdominal testis, this muscle is either absent or very small. Although the testicle and epididymis enlarge within a two months' period as a result of injection of the gonadotropic hormone, there is no gametogenetic maturity.

## When and when not to use gonadotropic hormone injections

The physician should first, if possible, make an accurate diagnosis of undescended testicle. Hypogonadal individuals have very small testicles, which lie in the upper part of the scrotum. Dyscrasias of the thyroid, pituitary and adrenal

\*From the School of Medicine, Yale University, and the New Haven Hospital, New Haven, Connecticut.

†Read at the 14th Clinical Congress, Connecticut State Medical Society, New Haven, September 20-22, 1938.

glands occur. Congenital deformities of the testis and epididymis as well as congenital absence of the testis should be considered. Pseudo- and true hermaphrodites often present complicating endocrine disturbances. The ectopic testicle is always adherent and is almost always associated with a hernia. Migratory testicles voluntarily descend before or at puberty.

The best time to institute endocrine therapy is at the age of two and one-half or three years, although it may be used up to and during adolescence. There is little in favor of the argument for placing the undescended testicle in the scrotum before the third year in order to conserve its reproductive potentiality. Certainly, before adolescence begins the testis should be placed in the scrotum by one means or another.

The gonadotropic hormone injections should be given intramuscularly every day or every other day, 750 rat units per week being given for a period of four weeks. The treatments should of course be stopped if descent is complete within this period. If descent is nil or only partial, the therapy may be safely continued for another four weeks' period. Eight or nine weeks' treatment is sufficient. If the treatment is continued in children beyond this period, premature puberty may result. There are several cases on record of children from five to eight years of age in whom adult genitalia resulted from eight to ten months' treatment.

If the large amounts of gonadotropic hormone which are produced at adolescence do not bring about a descent of the testis, artificial injection of the gonadotropic principle also fails. Two patients, one twenty-four years of age and the other twenty-eight, were sent to the author after eight and ten months of gonadotropic treatment. At operation, one patient was found to have a congenital absence of the testis, for which he had been treated, and the other had an intra-peritoneal, atrophic testis. While the author has not seen any ill effects from gonadotropic injections, Cabot reports verbally that three or four

deaths, apparently allergic in character, have been attributed to this therapy.

#### Adjunct to Surgery

The percentages of successful results of gonadotropic hormonal injections which were first reported were too high. Some observers reported as high as 100 per cent; others, 80 per cent and 50 per cent. The average is now about 18 to 20 per cent. Some children were treated who did not need treatment. Incorrect diagnoses were made in other cases. As the experience in the use of this medication increased, the percentage of cures diminished, probably due to increased accuracy of diagnosis and more conservative application of the therapy.

Even though the gonadotropic treatment fails to cause descent of the testis, it is not valueless, because the vas and vessels are lengthened, the testis increases in size and the scrotum is prepared to receive it. Surgical orchidopexy is greatly facilitated. If at operation the structures of the cord are left on a stretch, post-operative endocrine therapy may be given for two or three weeks.

#### Conclusions

1. Endocrine therapy can be safely advocated for a period of eight or nine weeks.
2. Endocrine therapy produces a descent of the testis in 18 to 20 per cent of the cryptorchids.
3. As an adjunct to surgery, it can be given before or after the operation.



#### FLORIDA'S NEW PLAN

The Florida Medical Association has a new plan to provide medical and surgical service for patients of varied financial status. The organization plans to establish a bureau to serve as a clearing house for classifying patients financially, and adjusting, budgeting and collecting fees. A single bureau is to be operated for one year as an experiment and if it proves successful others will be opened throughout the state. The patient will select his own physician to serve at the price and terms fixed by the bureau.

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# The Treatment of Undulant Fever\*

WILDER TILESTON, M.D., New Haven, Conn.

Undulant fever, or Brucellosis, is now being more frequently recognized, and is today, in Connecticut as well as elsewhere, so often met with that its treatment has become a matter of general concern. In 1937 there were reported to the State Board of Health 53 cases of typhoid fever, 31 cases of paratyphoid, and 74 cases of undulant fever. The latter is therefore almost as common as typhoid and paratyphoid combined. Prophylaxis, the Pasteurization of milk, is so effective that in those communities where no raw milk is consumed, the incidence is confined to farmers, veterinarians and others who come in contact with diseased animals, or their products.

Treatment may be considered under two heads: (1) General treatment, and (2) Special measures employed directly against the infection.

The general treatment is the same as that for any infectious disease. Complete rest in bed is essential, and on account of the frequency of relapse, should be continued for at least ten days after the temperature becomes normal. Under this regime alone many cases go on to recovery, but a long time is often necessary, and any measures that would shorten the period of invalidism, estimated at three months, would be very welcome.

Among special measures, five methods have been employed, namely (1) immune serum, (2) vaccines, (3) foreign protein or "shock" therapy, (4) fever therapy or artificially induced fever, and (5) drugs.

Serum treatment up to the present has not accomplished much, although recently Flippin<sup>1</sup> has reported prompt recovery in all of five cases so treated, and Boston and Smith<sup>2</sup> in two cases of meningitis due to the *Brucella* organism, noted recovery after the intrathecal injection of immune serum. It is possible that a more concentrated serum will prove more uniformly effective.

Foreign protein therapy, chiefly in the form of intravenous injection of mixed typhoid vaccine, has proved quite effective. Several injections of 30 to 50 million basilli are given at intervals of 2 or 3 days. Here again the production of fever is the important factor.

Artificially induced fever is apparently a very good method of treatment, where it is available. Prickman<sup>3</sup> of the Mayo Clinic, using the Ketter-

ing hypertherm, has reported excellent results in 18 cases; he maintains a temperature of 105° for 5 hours. Usually three treatments are required.

Drug therapy up till recently has been disappointing. Intravenous injections of mercurochrome, arsphenamin, and acriflavin have been advocated, only to fall into oblivion. Sulphanilamid however seems more promising, although the number of cases so treated is not yet large enough to draw conclusions. A rational basis for the use of this drug has been supplied by the work of Welch, Wentworth and Mickle<sup>4</sup>, who showed that in people with undulant fever, and also in guinea-pigs infected with *Brucella*, sulphanilamid caused a marked increase in the opsinocytophagic activity of the leucocytes. There have been a number of favorable reports, mostly of single cases. In the three cases of Stern and K. W. Blake<sup>5</sup> the fever disappeared in 4 days and did not return. Other observers have noted an interval of 7 to 8 days before the patient became fever-free. Full doses may be necessary, for in the case of Blumgart<sup>6</sup> improvement did not occur until the titer of sulphanilamid in the blood reached 7.7 milligrams. The results on the whole are encouraging and further trial of the drug is indicated.

In closing, it should be emphasized that none of these methods has been proved to shorten the course of the disease, which is estimated at three months for patients treated symptomatically. It is to be hoped that further experience with larger series of cases, preferably with controls, will clarify the situation.

A comprehensive review of the treatment of undulant fever up to the year 1936 will be found in an article by Carpenter and Boak<sup>7</sup>, in *Medicine*, February, 1936.

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\*Read before the 14th Clinical Congress, Connecticut State Medical Society, New Haven, September 20-22, 1938.

# State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

## The State Crippled Children Program

RUSSELL V. FULDNER, M.D.  
Chief, Division of Crippled Children  
Connecticut State Department of Health

The Connecticut State crippled children program was established as a result of an act<sup>1</sup> of the General Assembly which became effective July 1, 1937. This act granted an annual appropriation of \$60,000 to the State Department of Health "to administer a program of services for children who are crippled or who are suffering from conditions which lead to crippling". The act also authorized the State Department of Health to receive Federal funds allotted for the same purpose in accordance with the provisions of the national Social Security Act<sup>2</sup>.

The crippled children programs established or aided in the various states under the provisions of the Social Security Act have differed widely in details of organization. In some states two or three institutions serve the hospital needs of the entire program; in other states more emphasis is placed on the development of regional facilities to meet regional requirements. The latter "decentralized" plan is more adaptable to the specific needs of crippled children in Connecticut, and it forms the basis of the clinical organization of the program in this State.

In February and March 1938 the five (now six) monthly diagnostic clinics which are the functional hubs of the Connecticut program were opened in selected hospitals throughout the State. Each of these clinics is headed by an orthopedic surgeon who may, as a supplement to the orthopedic examination, refer patients for any type of consultation. Also present at each of the clinics is the Chief of the Division of

Crippled Children, principally in an administrative capacity; a medical social worker, whose duties include a determination of the economic eligibility of patients for service<sup>3</sup>; a physical therapist, who receives instructions from the surgeon concerning the treatment of patients between clinics; a stenographer to take the surgeon's notes; and two nurses to assist with patients and parents. In three of the six clinics a local surgeon acts as associate to the orthopedist in the management of the clinic and in the hospital care of patients. The associate surgeons are of vital importance in a decentralized program, since without them the local treatment of crippled children would be impossible, or at best undesirable.

The need supplied by the diagnostic clinics is illustrated in Figure 1, a monthly record of patients applying for the services of the Division of Crippled Children<sup>4</sup>. The steep initial rise and subsequent levelling of the curve was to be anticipated in the launching of a new program of clinical services. Experience has indicated that the monthly increment of new patients is to a great extent dependent on publicity and on the proximity of the clinics to the homes of the patients. Because of these factors, a rise in clinic admissions is less due to chance than to planning.

By the end of October 1938, 479 patients had passed through the State clinics, an average of

1. Section 582d, 1937 Supplement to the General Statutes of the State of Connecticut: An Act Concerning Crippled Children.

2. Social Security Act (1935), Title V, Part 2.

3. Every case accepted by the Division of Crippled Children must be of needy financial status, and must be referred to the State program by a licensed Connecticut physician.

4. Four children have been treated without preliminary examination at a State clinic. These have all been hospital cases.



## MONTHLY RECORD OF NEW PATIENTS, 1938.

Showing Number at Each Clinic and Total for All Clinics.

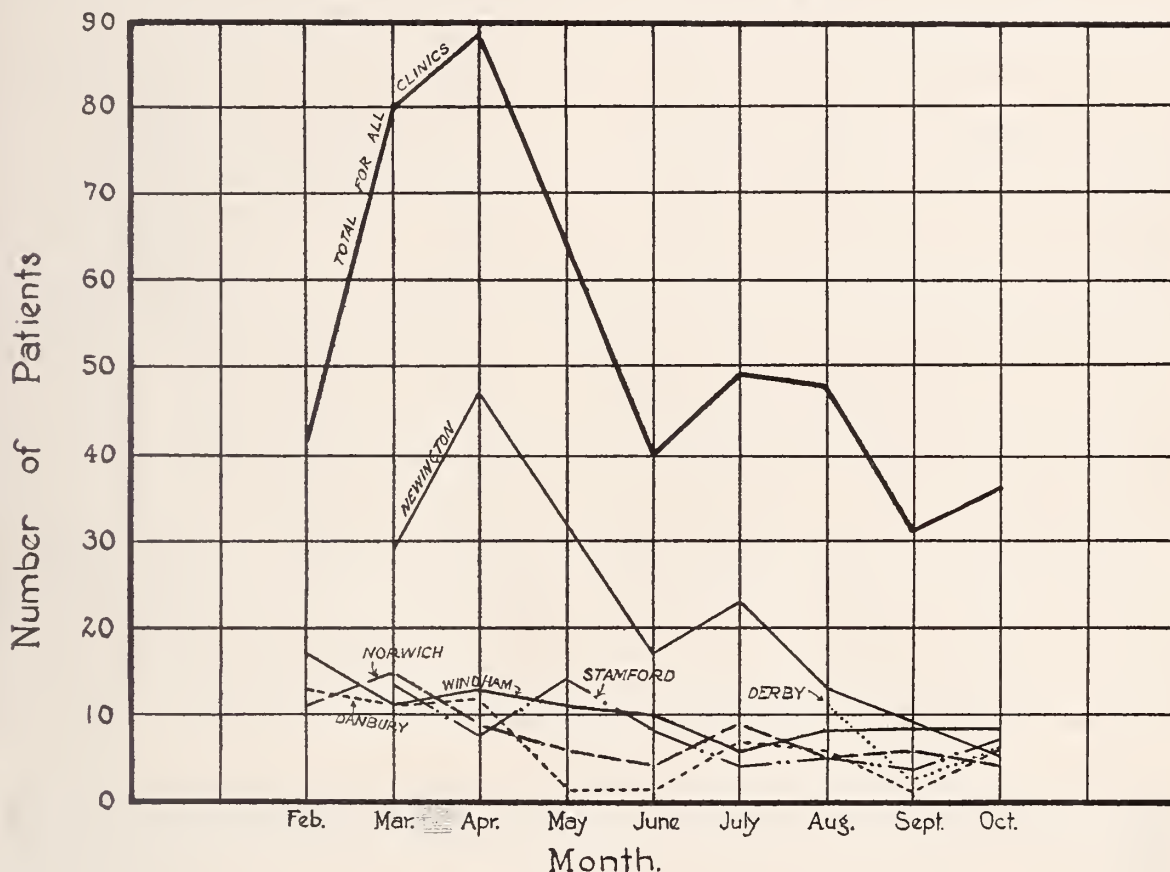


Figure 1

53 new patients each month. The conditions which these children presented, and other data of statistical interest, have recently been detailed elsewhere<sup>5</sup>. More than three-fourths of the cases have been orthopedic; the next largest group have been children with cleft lip or cleft palate. The orthopedic cases are treated by the surgeon in charge of the clinic which the patient attends; the non-orthopedic cases by the consultant to whom the patient has been referred. Hospitalization data are given in Figure 2. By the end of October, 1938, 105 children had been admitted to hospitals (this figure includes a few re-admissions), the average duration of stay being 25.3 days.

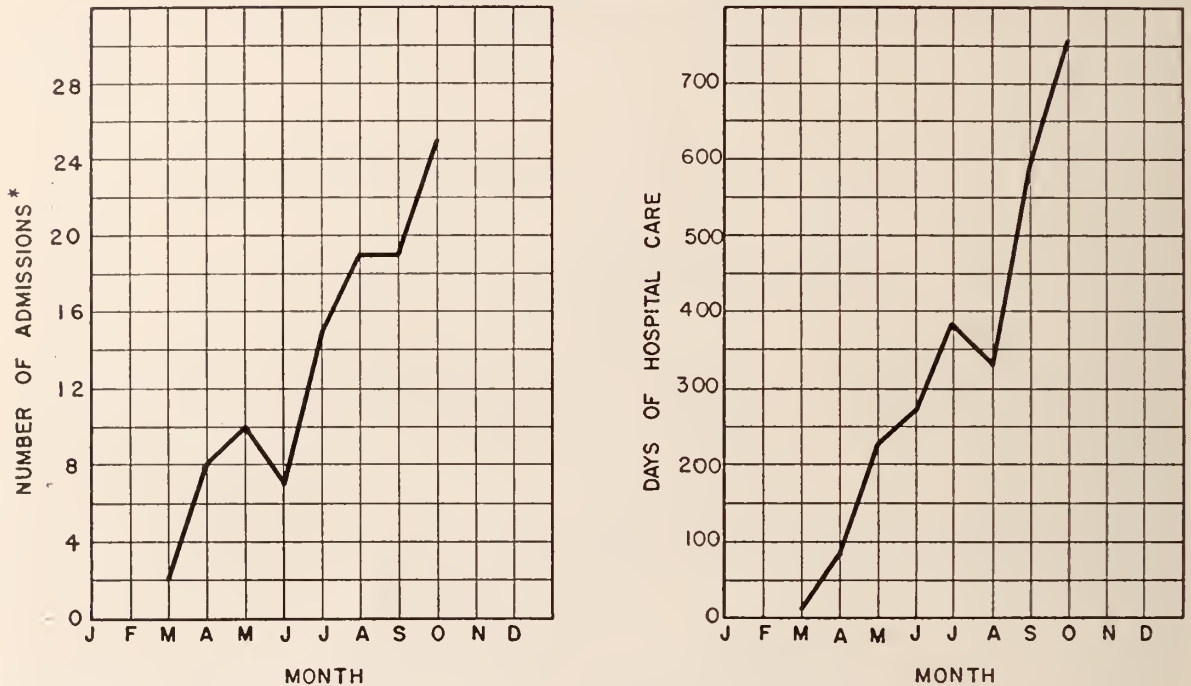
The residence distribution of patients reached

5. A statistical summary of the activities of the State crippled children program was published in the Connecticut Health Bulletin, October 1938.

by the crippled children program is fairly State-wide (Figure 3). The numerous blank sections on the map indicate, however, that much case-finding remains to be done. Other needs which must be met are facilities for corrective speech training, improved means of transportation, and earlier reporting of crippled children. The average age of children attending the clinics has been  $9\frac{1}{2}$  years; it is most important that this figure be lowered. No single factor is more likely to influence the prognosis of a crippled child than the age at which he is brought under treatment. For the reporting of cases the Division of Crippled Children is to a great extent dependent on the physicians of the State. The medical profession therefore plays a determining role in assisting the State crippled children program to its highest achievement — not the cure, but the prevention of crippling.

# HOSPITAL RECORD, 1938.

Number of Admissions and Days of Hospital Care Each Month.



\* Including Re-admissions

Figure 2

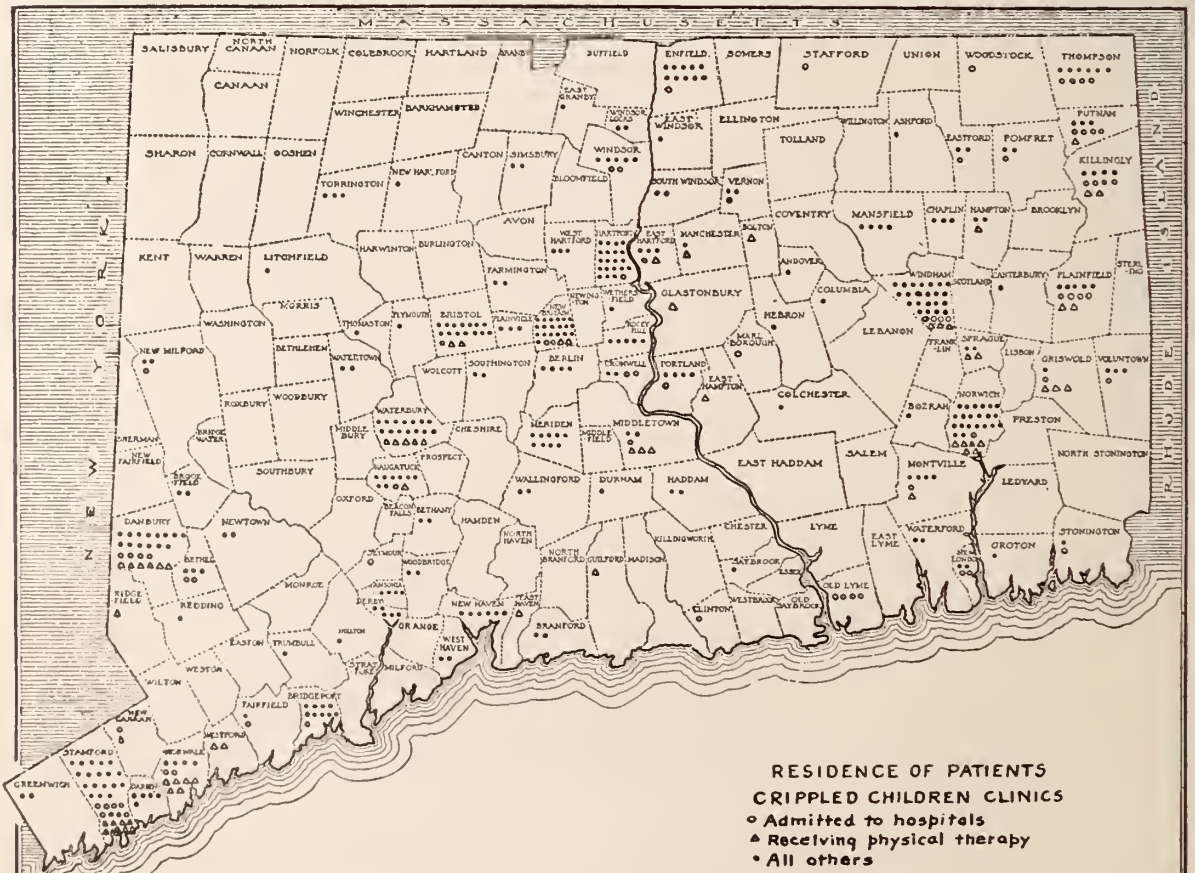


Figure 3



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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

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**NEWS.**— Our readers are requested to send in items of news, also marked copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

**ADVERTISEMENTS.**— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

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## • Editorials •

### JOSEPH HERGESHEIMER

"The world is too much with us; late and soon,  
Getting and spending, we lay waste our powers."

The poet is immortal because he is ageless. Although the outer aspects of life may change, these inner kernels of truth are changeless. The physician of today, encircled by the eddying whirlwind of problems related to the practice of medicine must, perforce, take refuge now and then in the active participation or passive appreciation of the arts.

One such opportunity presented itself upon the occasion of the recent meeting of the New Haven County Medical Association, when the famous novelist, Joseph Hergesheimer, read a paper so clever, witty and brilliant that we could not resist sharing it with you in this issue. It is difficult to convey adequately in mere words the keen enjoyment which was added by the novelist's personality.

—☆☆—

### THE GHOST OF THE TIN CUP

"All glasses, dishes, silverware and other utensils used at places dispensing food or drinks shall be washed after each service until clean to the sight and touch in warm water (100-120 degrees F.), containing soap or alkali cleaner.

"After such washing, all such glasses, dishes, silverware and other utensils shall be placed in wire cages and subjected by immersion for at least five minutes to the bactericidal action of water heated to a minimum of 170 degrees F. The Health Officer may give his written permit to the use of other equally effective methods of treatment by heat, hot water, or steam.

"After such immersion or other approved method of sterilization, such glasses, dishes, silverware and other utensils shall be stored in such manner as to be free from contamination."\*

From the vantage point of any soda fountain one has full opportunity to observe how carefully the above health measures are in force. We sip our Koca-Kola, or a Sal Bromide, or some alkaline beverage which the Pink or White

\*Quotation typical of sanitation laws in most cities of Connecticut.

Net-work says our collective American systems need. In truth, it is the glass that needs the alkali rather than the average digestive tract.

With the minimum of imagination one can readily see the evils of the improperly sanitized drinking glass. A quick immersion in luke warm water adds to, rather than decreases, the bacteria content of the glass which may collect in its frosting of grease film potential infection of common colds, trench mouth or any communicable disease to which the body is subject. It may seem a far cry back to the outlawed common drinking cup, but are we so much more enlightened when we, ostrich like, ignore the violations of health and cleanliness which no one of us would tolerate in our home?

If poor health conditions exist it is because there are no health laws controlling the situation, or because said laws are not enforced. Public opinion can demand that pure food be served in public eating places, and, equally important, that clean, sanitized utensils be provided.

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#### THE WISCONSIN STUDY OF SICKNESS INSURANCE

Sickness insurance involves the most complicated of all social legislation. It is complicated in its concept, in its application and in its administration. Knowledge of the insurance systems overseas that is available in this country is in a large part generalization or propaganda based upon a preconception of its desirability. The subject is discussed in the abstract, but the details of operation have been neglected.

In Wisconsin there have been political influences that for some time have sought a state sickness insurance scheme and The State Medical Society of Wisconsin has perforce directed its attention to the proposal. In order that accurate basic information might be available to its members the Society, last summer, sent its Executive Secretary, Mr. J. G. Crownhart, to Europe to study the operation of sickness insurance plans. Mr. Crownhart, who is admirably qualified, had rich opportunity to interview insurance administrators in many countries, physicians serving under sickness insurance, and the officials in the International Labour Office at Geneva.

The report based on this study presents a thorough-going and dispassionate inquiry into this moot subject, and is a great contribution to

our knowledge. The State Medical Society of Wisconsin and Mr. Crownhart are to be complimented upon its production. It is recommended to all who would discuss sickness insurance, and should be required reading for every representative in Congress and the zealous advocates of the establishment of a system of sickness insurance in the United States.

C.B.

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#### KNOWING THE CANDIDATES FOR POLITICAL OFFICE

The Ohio State Medical Association believes that all its members should be informed as to the stand taken by all candidates for important administrative and legislative offices before an election. With this end in view this society through its sub-committee on legislation interviews all such candidates. The Ohio Society is not interested in party politics but is interested in seeing that only qualified candidates, regardless of party, are elected to public offices. This is a procedure worth imitating.

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#### THE PENNSYLVANIA MEDICAL JOURNAL

In June 1897, a little over 41 years ago, the Pennsylvania Medical Journal emerged from the Pittsburgh Medical Review as the first state medical journal in America. The Review had been founded 11 years before. The Pennsylvania Medical Journal appeared in October of this year in an entirely new dress. Internal changes are being contemplated, such as a column of Letters to the Editor and another page devoted to important items published in that Journal forty years ago. We offer our humble congratulations to our parent of mature years.

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#### INCREASE IN A. M. A. FELLOWSHIP DUES

Effective January 1, 1939, the annual Fellowship dues and the subscription price of the Journal of the American Medical Association will be increased to \$8.00. Constantly expanding work of the Association and the development of certain contingencies are expected to require unusual expenditures during the coming year. Physicians must realize that in order to express themselves through organized medicine today it is necessary to pay the cost. The ear of the people can no longer be gained by merely sitting at the bedside holding the pulse.



# From the Secretary's Office

CREIGHTON BARKER, M.D.

258 Church Street

New Haven

## COMMITTEE TO STUDY EMPLOYMENT IN STATE INSTITUTIONS

In response to a request from the Director of the Personnel Department of the State, the Chairman of the Council will appoint a committee from the Society to study the subject of the conditions of employment of physicians in State institutions. The Committee will direct its attention particularly to minimum qualifications for appointment, recruitment for examination and salary rates. The personnel of the committee has not yet been completed, but it is hoped that the study will be under way by the first of the year.

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## LEGISLATIVE COMMITTEE COMMENCES ITS ACTIVITIES

The first of the proposed legislation, having to do with health and welfare that will be presented to the 1939 General Assembly, is now being reviewed by the Society's Legislative Committee. It is a bill proposing examination and licensure of Physio-Therapists and Masseurs.

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## COLLECTION AGENCIES

From time to time representatives of collection agencies call upon physicians in various parts of the State soliciting business, and frequently inquiries have been received in this office regarding such agencies. Some of these organizations are dependable, others are undoubtedly fraudulent. The Bureau of Medical Economics of the American Medical Association has a great amount of information concerning these activities,— that information is available through this office, and it is suggested to members of the Society that they make inquiry here

concerning an agency before entering into a contract with it.

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## COMMERCIAL PREPAID MEDICAL SERVICE INSURANCE

Plans for underwriting the costs of medical service on a voluntary basis are being rapidly developed by commercial insurance companies. Three such contracts will soon be available in this State. These contracts have been reviewed in this office, and information on them is available here. All of the contracts provide cash indemnity for medical expense incurred while the insured is in a hospital. One of the contracts has a very low premium rate, with correspondingly low benefits. Another offers adequately high cash payments for a much higher rate. In spite of much wishful thinking on the part of many it is still not possible to get something for nothing. None of the plans have been approved by The Connecticut State Medical Society.

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## 150TH ANNIVERSARY OF THE FOUNDING OF THE SOCIETY

The first meeting of The Connecticut State Medical Society was held in Middletown on October 9, 1792. In 1942 the Society will be 150 years old, and already the celebration of that anniversary has been anticipated. The Middlesex County Medical Association has invited the Society to meet in Middletown for its 150th Anniversary Meeting, and this invitation was approved by the Council at its November meeting, and the recommendation of its acceptance will be made to the House of Delegates at its annual session in 1939.

The Centennial of the Society was celebrated in New Haven on May 25th and 26th, 1892.

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# Our Neighbors

## NEW YORK

Acting upon a recommendation made by Dr. Ira V. Hiscock, Public Health Consultant of Yale University, the New Rochelle Medical Society recently recommended to the City Council that a Board of Health be established in New Rochelle. At present the Department of Health exists as a Bureau within the Department of Public Welfare, and the Health Officer is a subordinate of the Director of Public Welfare. The Medical Society also adopted a recommendation that an advisory committee of health be appointed to meet with the Board of Health at regularly stated intervals.

By a decision of the Supreme Court the State Board of Regents of New York has been ordered to endorse the licenses of foreign physicians wishing to practice in New York if the physicians submit satisfactory proof of their qualifications. Justice Foster in handing down his decision states that the regents' rule fixes a standard beyond that contemplated by the legislature.

## - NEWS -

### *from County Associations*

#### Hartford

The Hartford Medical Society and the Hartford County Medical Association through their Medical Information Bureau held a public meeting in Hartford on November 7 for the purpose of presenting the subject of Cancer. The guest speaker was Dr. Emil Novak of Johns Hopkins University School of Medicine. Dr. Novak presented his subject, "Cancer — A Message of Hope," in such an interesting manner that all present could not fail to grasp the fundamental facts relative to this important disease. Early diagnosis and regular examinations at given intervals of time were emphasized. Over 2,000 people attended the lecture, the first of its kind attempted in this county. The State Board of

Health conducted an exhibit in Bushnell Hall at the time of the meeting.

The 146th semi-annual meeting of the Hartford County Medical Association was held at the Chippanee Country Club in Bristol on October 25. Golf was enjoyed by some of the members in the afternoon. After the dinner Dr. Abraham Myerson of Boston spoke on "The Relationship of the Autonomic Nervous System to Pharmacology". Dr. Frederick S. Bird of Bristol presented an interesting case report of Hodgkins Disease.

On November 1 the Plan for Hospital Care, Inc., began doing business in Hartford and Manchester. This corporation had been operating in New Haven since April, 1937, and in Waterbury since February, 1938. Torrington and Middletown became members at the same time as the three hospitals of Hartford. This plan is now the twelfth largest of the forty similar plans throughout the United States and has a wide public interest and a sound financial backing. The membership is growing rapidly.

A recent issue of Science News Letter credits Dr. John A. Wentworth as being one of three to report to the American Association of Immunologists that sulfanilamide is an aid in diagnosing undulant fever.



#### Litchfield

At the annual meeting of the Board of Governors of the Charlotte Hungerford Hospital held October 17, Umberto E. Borzani, Carleton H. Talcott and Edwin M. Stone were elected to membership on the Board of Corporators. Vacancies had occurred as the result of death during the previous year of Corporators Charles G. Agard, Edward H. Hotchkiss and Benjamin B. Phillips. The same officers and committees were re-appointed.

"Recent Advances in Chest Surgery" was the title of a paper presented by Dr. Gustaf E. Lindskog of Yale Medical School before the Torrington Medical Society on November 2. Dr. Lindskog presented case histories demonstrating the excellent results obtained by him in the treatment of bronchiectasis by lobectomy.

The autumn meeting of the Connecticut State Nurses' Association was held in Torrington on October 20. At the Public Health Nursing Section, Mayhew Derryberry, Ph.D., of the United States Public Health Service spoke concerning



"The Public Health Nurse as a Family Teacher." A paper describing the "Care of the Diabetic Patient" was presented by Dr. Bradford Walker of Cornwall. Other speakers were Dr. John L. Childs of Teachers College, Columbia University, Miss Cordelia Cowan, Executive Secretary of the Nurses Examining Board of the District of Columbia and Miss Gladys Sellew of the School of Nursing of Catholic University.



#### New Haven

The New Haven Medical Association has voted to participate in weekly radio broadcasts during the coming year on subjects relating to medicine and to public health. The committee on arrangements and program under the chairmanship of Dr. Barnett Greenhouse is planning a schedule of seasonally appropriate talks by members of the Association.

Resolutions of regret and sympathy for the bereaved family of Dr. Frank Kirby, who died in New Haven on September 5th, were spread upon the record of the minutes of the meeting of the New Haven Medical Association on October 19th.

Dr. Max Taffel presented a paper on "The Treatment of Burns" at the November 2nd meeting of the Association. The meeting on November 16th was addressed by Dr. Elliott Cutler, Professor of Surgery at Harvard, on the subject of "Post-operative Complications."

Dr. Henry E. Sigerist, Director of the Institute of the History of Medicine at Johns Hopkins University, delivered the Dwight H. Terry lectures on Wednesday, Thursday and Friday, November 2, 3, 4. The Dwight H. Terry Lectureship Fund, established in 1905 by gift to Yale University from Dwight H. Terry of Plymouth, Connecticut, became available in 1932 for lectures on, "Religion in the Light of Science and Philosophy." Dr. Sigerist spoke on "Medicine and Human Welfare."

The Yale Medical Society was addressed on Wednesday, November 9th by Dr. Rudolf Schoenheimer, Assistant Professor of Biological Chemistry, College of Physicians and Surgeons, Columbia University, on "Studies in Protein Metabolism with the Aid of Heavy Nitrogen."

Dr. Harold M. Marvin discussed subacute bacterial endocarditis at the weekly Clinical Conference of the staff of the Meriden Hospital on October 12th.

The Meriden Hospital announces the following appointments to its staff:

Dr. David Cohen — Pediatrics.

Dr. James VanLeuvan — Rhinology.

Dr. Stephen Lirot — Medicine.

Dr. Harold Strickland — Medicine.

Dr. Louis Pierson — Medicine.

Dr. Dean Lewis addressed the September meeting of the Waterbury Medical Association. The regular October meeting was devoted to a discussion of diabetes. Papers were presented by Dr. John Foster, Dr. Joseph Collins, Dr. Abe S. Brown, Dr. James Hennessey, and Dr. Michael J. Lawlor. On October 20th the Waterbury Medical Association held its first public health forum. A large and appreciative audience attended. The subject of the forum was "Early Diagnosis of Tuberculosis, Especially in the 'Teen Age Group.'" Dr. David Lyman, Dr. Cole B. Gibson and Dr. James Hennessey were the speakers. The numerous questions from the audience attested to the lively interest in the subject.

The New Haven County Medical Association held its 145th semi-annual meeting at the Waterbury Country Club on October 27. Following an afternoon of golf the members were addressed by Dr. John A. Hartwell of New York City on "Medical Practice Today." Dr. Hartwell discussed at length hospital service and sickness insurance plans. The after dinner speaker was Mr. Joseph Hergesheimer of West Chester, Pennsylvania, and his subject, "The Morphology of the Love Story." All who heard Mr. Hergesheimer enjoyed a most delightful evening.



#### Tolland

The Tolland County Medical Association met on October 18 at The Old Homestead Inn at Somers for its 146th semi-annual meeting. Dr. Morton Arnold of Willimantic presented a paper on "Treatment of the Common Diseases of the Ear, Nose and Throat." Dr. Hugh Campbell, President of the State Medical Society, was present as at the other county meetings but this time without any of his usual entourage. For various and sundry reasons the chairman of the council, the executive secretary, the treasurer and the editor of the Journal were all prevented from attending.

## Windham

The 145th semi-annual meeting of the Windham County Medical Association was held at the Nathan Hale Hotel in Willimantic on October 20. Dr. Allan M. Butler of Boston presented a very excellent resume of the entire problem of subsidized medicine.



## REPORT OF DELEGATES TO VERMONT MEDICAL SOCIETY

Mr. President and Gentlemen of the House of Delegates:

The One Hundred and Twenty-fifth Annual Session of the Vermont State Medical Society was held at the Hotel Vermont, Burlington, October 6th and 7th, 1938, and both of your Delegates were present. The program for the first day was devoted to varied subjects, including the Vice-President's address on "The Problem of Goiter in General Practice," and a paper by Dr. Alexander D. Languier of the New York State Bureau of Pneumonia Control. In the afternoon there was a discussion of group hospitalization and it was evident from the remarks made by various members of the Society that there might be some difficulty in establishing this in a mainly rural community like Vermont.

On the second day there was a very excellent symposium on the gall bladder which had been arranged by Dr. Charles K. P. Henry of Montreal, and which was presented by various members of the faculty of McGill University. The afternoon was devoted to a symposium on fractures.

Your Delegates came away with a feeling that the meeting had been profitable, that it was well planned, and that the papers were excellent.

GEORGE BLUMER,  
ROY L. LEAK.



## A COOPERATIVE PLAN FOR PROVIDING CARE FOR ALL MOTHERS AND INFANTS IN A RURAL COUNTY

A large rural county in New Jersey has developed a co-operative plan for providing adequate care for all mothers and infants. A prenatal center under the charge of obstetricians who are paid for their services from maternal and child health funds has been established in a local hospital. Obstetric consultation is provided for the local physicians attending mothers in the low-income group. Home delivery nursing service is supplied for patients delivered in their homes by local physicians.

Well-baby conferences staffed by local physicians who are paid for their services have been established in three sections of the county.—*The Child*, Sept., 1938.

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## Letters to the Editor

Litchfield, Connecticut

August 30, 1938

Editor, Connecticut State Medical Journal,  
Hartford, Connecticut.

Dear Doctor:

It is possible that the contagion of the common cold most often enters the body through the eye; that soiled hands most often carry this contagion; and that we should so advise the public. It is certain that several diseases are communicable through the eye and it is possible that many are. Infection through the eye is really infection through the nose, for anything that enters the conjunctival sac, and that will pass through the nasal duct, reaches the undefended interior of the nose in a few seconds. Even the laity knows that a drop of argyrol solution in the eye will appear in the nose almost immediately.

Many authorities testify as to the hands as carriers of contagion and tell us to keep fingers out of nose and mouth. But I have yet to see a warning against rubbing the eyes with dirty fingers. If the hand is soiled with infectious matter from shaking another hand wet from a handkerchief soaked with the secretions of another person's acute cold some of this moisture is likely to find its way into the eye. This will not be noticed because it is not irritating. Most of us rub our eyes with our fingers many times a day. It is a habit difficult to break because it is automatic.

That diseases may make the eye a portal of infection is known. The laity is astonished to learn this and most physicians seem to have thought little about it. There are references to infection with tuberculosis through the eye. Some attention has been called to the possibilities by the ophthalmologists who warn against them. But such warnings apparently have not impressed the profession nor even

reached the public. A Connecticut authority suggests that tularemia sometimes follows this channel. Hans Zinsser, "Resistance to Infectious Diseases," p. 19, is quoted: "It has been shown that plague and glanders, as well as hydrophobia, may be transmitted by simple instillation of infectious material into the uninjured conjunctival sac. In the case of hydrophobia, a young man contracted hydrophobia by rubbing his eyes with a finger contaminated with the saliva of a rabid dog." A well known surgeon of New York was operating on a chancroidal bubo when some of the pus spurted into his eye. He was laid up for a year with multiple abscesses in the neck, and other complications.

Personal experience, once the habit of rubbing the eyes with bare fingers was broken, has been unprecedentedly long periods of freedom from colds.

This contention, then, is that the eye is a portal through which the infection of the common cold frequently enters the cavity of the nose; that rubbing the eyes with fingers soiled with infectious material is the common method by which this occurs; that this is unsuspected by the public and little considered by the profession; and that it is our duty to warn the public against this method of infection, as well as against droplet and dust infection through the air and infection from putting soiled fingers and contaminated articles into the nose or mouth.

Against infection through the eyes by rubbing them with dirty fingers there is the completely efficient protection of not rubbing them.

Finally it is to be considered that more serious diseases than colds are known to have used the eyes as a channel of infection and may do so more often than even the profession suspects.

Very truly yours,

W. C. Deming, M.D.

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## • OBITUARIES •

### JOHN PRESTON CARVER, M.D.

1871 - 1938

On February 4th, 1938, death claimed Dr. John Preston Carver. He was sixty-six years of age and had practiced medicine for thirty-six years.

He was born in Pelham, Mass., May 24th, 1871 and was the son of the late Freeman C. and Almira (Thayer) Carver.

After obtaining his early education in Northampton, Mass., he was graduated in 1896 from the Albany Medical College. He then took a post-graduate course in Obstetrics. In 1902 he began practice in Simsbury, Conn. For the last twenty years he has been Medical Examiner for the towns of Simsbury and East Granby.

In 1898 he married Miss Helen E. Eno of Simsbury, who, with three daughters, survives him.

Dr. Carver was a member of the Hartford County Medical Association and the Connecticut State Medical Society. He was also a member of St. Marks Lodge, #36, A. F. and A. M.

Dr. Carver enjoyed the friendship of many of his colleagues in Hartford. He was admired for his courage and fortitude which he demonstrated in so many ways.

In his earlier years he took an active interest in fishing and hunting and has always shown an interest in sports of all kinds. He was also interested in antique furniture and there are many rare pieces in his collection.

Dr. Carver was a good citizen and his loyalty to his profession, to the community in which he lived, and to his patients gave him a place of honor and respect in the hearts of those who knew him, something most people hope for and few attain. The people of Simsbury have lost an able physician and a kind and sympathetic friend.

James E. Stretch, M.D.

### EDWARD LOOMIS PRATT, M.D.

1858 - 1938

Dr. Edward Loomis Pratt, son of Dr. Henry Pratt and Anna Barnes Pratt, was born in Ravenna, Ohio, November 2, 1858. His father was a graduate of the old Pittsfield Institute, moving to Ravenna after he had completed his medical training. They then moved to Lanesboro where Dr. Edward Pratt received his early education. He graduated from New York University in 1884.

In February 1885 he located in Winsted where he continued to practice up to the time of his death, March 4, 1938.

During this period he was attending physician at the Wm. L. Gilbert Home and was appointed a member of the Board of Trustees for both the Gilbert Home and Gilbert School, following the death of Governor Lorain Cooke.

Dr. Pratt was one of the founders of the Litchfield County Hospital and served as a member of the Board of Directors from its opening up to the time of his death. For many years he was a member of both the medical and surgical staffs.

He was a member of the Litchfield County, State and American Medical Associations, also a member of the Litchfield County University Club.

His widow, formerly Miss Elizabeth Alvord, one son, Henry Gay Pratt, a sister, Miss Ella Pratt, and two grandchildren, as well as many of his patients will remember his abrupt and frank manner which commanded the esteem of all those who came in contact with him.

Roy V. Sanderson, M.D.



### NATHANIEL SELLECK, M.D.

1868 - 1938

Dr. Nathaniel Selleck was born in Danbury in 1868 and died in Danbury March 13, 1938, completing a service in medicine to his home community of 47 years, having graduated in medicine from the University of the City of New York in the Class of '91. Himself the fourth Nathaniel Selleck in succession, he leaves a son Dr. Nathaniel, Jr., and a grandson Nathaniel.

Dr. Selleck began his practice in partnership with his former preceptor, Dr. John H. Benedict,

with whom he had "read medicine" a year before he entered the Medical School. In the early nineties, a "Doctor" in a community the size of Danbury was expected to do what came to his hand as there were no "Specialists" for him to refer cases to, but a very few years decided Dr. Selleck to confine his attention to Internal Medicine and Obstetrics. He thus became and remained the trusted family doctor whose advice was sought because of his ability as a diagnostician and the feeling that he was entirely unbiased when surgical problems arose.

In spite of a very large practice he was a tremendous reader and with a very retentive memory he analyzed and utilized the stores of information that he acquired. He became especially interested in psychiatry and read almost everything on the subject as it appeared and this gave him a rather detached philosophy from which he viewed life with an intense interest.

The practice of medicine is a life of service and peculiarly qualifies a doctor for usefulness in community affairs. Too frequently this opportunity is lost, but with Dr. Selleck his love for literature and scientific reading interested him in the school problems of the community and in 1914 he was elected a member of the School Board. After four years of service on the Board he was made Chairman and was retained in that position until his death. His interest in and knowledge of psychology led him to advocate strongly methods that would pick up, in the early school years, those cases of maladjustment of personality and institute proper measures to correct these cases which were amenable to treatment.

It is to be regretted that he did not live to see this plan of preventative and curative practice put into operation but it is to be hoped that the idea may live after him and bear the fruit that his vision anticipated.

How appropriate to a physician when it can be said that "He lived a life of joy in living a life of service".

D. Chester Brown, M.D.

## • Quarto Notes •

### THE PRACTICE OF MEDICINE

by Jonathan Campbell Meakins, M.D., LL.D.  
Professor of Medicine and Director of the  
Department of Medicine, McGill University  
2nd Edition 1413 pages \$12.50  
St. Louis C. V. Mosby Company 1938

Perhaps the most important quality of a textbook of medicine is its up-to-dateness. This text is especially well endowed with reports on the important new developments in the wide field of medicine. There are accounts of recently reported diseases, such as epidemic pleurodynia, lymphocytic meningitis, monocytic leukemia and experimental nephritis. Furthermore, the new drugs are discussed, such as sulfanilamide, protamine zinc insulin, benzedrine sulphate, nicotinic acid, and rabbit anti-pneumococcus serum. It is interesting to note, moreover, that in describing the EKG changes secondary to coronary thrombosis, although the illustrative EKGs show the old type of 4th lead, there is included the splendid table of comparative findings in leads I, 111, and IV (both old and new leads IV) from Bohning and Katz's supplementary article in the March, 1938 Archives of Internal Medicine. This is the best recent report on the subject.

There are in addition several rather striking differences between this and the average medical textbook. The one that is first noticed is the great wealth of pictures: color plates, photographs, X-rays, EKGs and photomicrographs. These are a valuable addition to the description of a disease, especially in the case of the less well-known sicknesses which are not likely to be seen very often. Such diseases have always been hard to visualize from only a word picture.

A second difference from the usual is found in the organization of the material. Diseases are divided into groups according to the part of the body primarily involved, so that scarlet fever, measles and rheumatic fever, for instance, are listed under "Specific Infections of the Nasopharynx and Mouth". Tumors, ulcers, bacillary and parasitic infections and functional disorders of the G.I. tract are all grouped together under "Diseases of the Gastrointestinal Tract". To cover the subjects not classified by regional distribution, such diseases as syphilis, tularemia, erysipelas, malaria, smallpox, etc., are found under "Infectious Diseases Conveyed by Parenteral Inoculation". This is a reasonable way to classify diseases if you want to study the afflictions of one region or look up a specific disease, for the subject index is excellent, but should you desire to study the common contagious

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diseases at one time, for instance, you would have to search in several different parts of the book.

Incidentally, the period of quarantine in some cases of contagious diseases is either not clearly defined, or else not mentioned at all. To be sure, local health rules vary in these periods.

The discussion of diseases in this textbook differs somewhat from average medical textbooks. Here considerable emphasis is placed on *why* symptoms and signs occur. Pathological physiology throughout is stressed, though especially well in the diseases of the cardio-respiratory systems. The historical background, however, is often merely hinted at or even entirely omitted, so that perhaps a little of the *art* of medicine is sacrificed for the *science*.

Finally, there are splendid bibliographical references at the end of each chapter. These should be extremely useful and stimulating to the student of disease, enabling him to read the original sources as well as the more recent contributions. After the larger chapters the bibliographies are given under subheads dividing them into more specific categories, but in other instances the references are listed merely alphabetically by the author's name and not separated into groups by disease. This means delay in finding all the references on one particular subject, for the 7 or 8 references on Tularemia, for instance, are scattered through the four pages of 127 references on infectious diseases.

On the whole, however, this textbook is a very well planned and skillfully arranged volume containing all the latest important knowledge. It will be a valuable and much used addition to the working library of the physician as well as a reliable and inspiring teacher to the student.

W. F. Smith



### APPLIED ANATOMY

by Robert H. Miller, M.D.

Associate Professor of Anatomy

University of Tennessee, College of Medicine

484 pages 71 illustrations \$6.50

Philadelphia Lea & Febiger 1938

Applied anatomies are written either by anatomists with some surgical experience or by surgeons with some anatomical knowledge. Theoretically they are designed to bridge the gap between morphology and surgery; practically they rarely do so. Ideally, applied anatomy should be an exposition of the practical functions of important anatomical structures and should, therefore, have wide application. This new book in the field is designed to help the student correlate the large number of separate facts in anatomy with the dynamics and functions of the living body. Eight chapters cover eight regions of the body including a general consideration of the skin and of the muscles. Much of the material is interesting to the anatomist and there are many allusions to cognate information in anthropology and physiology that add to the value of the book. However, there is rather more abbreviated description of anatomical structure than is necessary and as a result many of the clinical implications are slighted. Descriptions of surgical procedures are included from time to time but they are so brief as to be useless for either anatomist or surgeon. The author is acquainted with the literature and has obviously consulted a great many references. Each chapter has a bibliography and an index is included.

H. S. Burr

### YOU CAN SLEEP WELL

by Edmund Jacobson, M.D.

269 Pages \$2.00

New York McGraw-Hill Co. 1938

This book is offered to the lay public by a man who has been enthusiastically interested for many years in the question of muscular tension and relaxation. It is written in the form of a series of talks on insomnia by a physician to a patient in his office.

"Failure to relax" is stated to be the "cause" of insomnia, and "relaxation" is offered as treatment. An elaborate discussion of methods of attaining relaxation follows. One fails to find any differentiation of the various types of sleep disturbances. Factors other than tension are not discussed. Those disturbances of sleep in which tension plays no role are ignored.

Dr. Jacobson is not a psychiatrist. It is not surprising, therefore, that his treatment of insomnia is inadequate and one-sided. His book is not recommended.

The reader is referred to the paper by Wendell Muncie: "Insomnia in Clinical Psychiatric Practice", published in the Bulletin of the Johns Hopkins Hospital, Volume 55, page 131, 1934.

P. W. Preu



### TRIUMPH OVER PAIN

by Rene Fulop-Miller

438 pages \$3.50

New York Bobbs-Merrill Co. 1938

Within the short space of a few months since this book first appeared, translated into English, it has created a storm of protests, chiefly from the dental profession. The book has been characterized by an assistant professor in a large dental school as inaccurate, incomplete and obviously biased, yet it is entertaining and well written. Critics say Horace Wells has not been portrayed in a true light, has not been accorded his just due. In a recent visit to Hartford the author is quoted as admitting his unfair treatment of Wells and promising a corrected edition with a true display of facts.

We shall feel compelled to pardon Fulop-Miller for errors of commission and omission and permit him a novelist's license for inaccuracy. It is a rare art to be able to weave into a tale of facts different conversations, products of the imagination, as the author so skilfully does on many occasions. Although the story dwells at length on anesthesia and the controversy as to its true discoverer, it pictures the early days of surgery without any of the aids for relief of pain. The experiments of Faraday, Priestly, Davy, Velpeau and Hickman are all portrayed with a touch of imaginative zeal and Mesmer with his hypnotism is accorded recognition in passing. The origin of the obstetrical forceps, the hypodermic needle and syringe, the narcotics, morphine, cocaine and heroin, are related.

Whether we belong to the Boston contingency supporting Morton, to the Hartford group paying homage to Wells, or to the Southern followers of Long in Georgia we must pay tribute to this author's entertaining style and await a more correct statement of facts in a subsequent edition.

### COUNTRY OBSTETRICS

W. J. Shaw, M.D., of Fayette, Missouri, presents a review of six hundred home deliveries conducted by him over a period of ten years (J. Mo. State Med. Assoc., November, 1938). This review presents many interesting facts and commends itself to the reader because of its completeness of detail. Each case had a complete physical examination at the onset and the prenatal care included visits to the doctor every three weeks when weight, blood pressure and urinalysis were recorded. No cases of puerperal sepsis appear in the entire six hundred. The delivery in the home is made as nearly like that in the hospital as possible with a set up which includes all the necessary sterile goods and instruments. A graduate nurse is taken to all the home deliveries and not only prepares and watches the patient but also administers the anesthesia. The methods of delivery were as follows:— Spontaneous, 68.33%, outlet forceps 12.8%, low forceps 5.83%, medium forceps 1%, high forceps 0.33%, version and extraction 7.83%, breech extraction 3.66%, craniotomy 0.16%, Cæsarian section 0.00%. The gross maternal mortality for the entire series was three, a rate of 5 per 1000 births. These deaths were due to abruptio placenta, uremia with premature birth, and pulmonary embolism on the tenth postpartum day.

The total fetal mortality, excluding premature fetuses or monsters, was 4.0%. The author calls attention to the fact that about 50% of the stillbirths occurred in spontaneous deliveries with one-fourth of that number occurring as precipitate labors. He believes that generally speaking premature babies may be as well attended in a card board or wooden box, warmed by blankets or hot water bottles, as in the better equipped hospitals. (We may not all wish to subscribe to this — Ed.).

This review would seem to offer convincing evidence that prenatal care can be given in the country by any one who has the courage, intelligence and energy to do it. The absence of Cæsarian sections is striking. Possibly many of the maneuvers employed might have been replaced by sections with a lowering in the fetal mortality. Some information as to the types of pelvis predominating in this group might throw some light on the low incidence of sections. More such studies should be encouraged.

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## HOSPITAL CENTERS FOR THE CARE OF PREMATURE INFANTS

In Massachusetts the law requires the prompt reporting of the birth of a premature infant in a place other than a hospital or institution equipped to care for premature infants. Incubators are provided for the transportation of the premature infant to a hospital premature center, and his care in the hospital is paid for from public funds if the parents are unable to pay. Forty-two hospital premature centers have been established and 27 more are planned for this year. The establishment of a center is arranged between representatives of the hospital and the State division of maternal and child health and public-health nursing. The standards of care set up are the same as those used in Chicago (see "A City-Wide Plan for the Reduction of Deaths Associated with and Due to Prematurity," by Julian H. Hess, M.D., *Journal of Pediatrics*, vol. 8, No. 1, January 1936, pp. 104-110).

Institutes for teaching modern methods in the care of premature infants to public-health and hospital nurses have been provided for from maternal and child-health funds.—*The Child*, Sept. 1938.

—☆☆—

## MATERNITY INSURANCE IN CUBA

The system of maternity insurance for workers in industry introduced in Cuba by a law of 1934 was extended on December 17, 1937, to women employed in commercial establishments, public-service companies, cooperative and mutual-aid societies, also by the State, Provinces, municipalities, and other public agencies.

In these establishments the employment of women is prohibited for 6 weeks after confinement; a woman may also leave her work 6 weeks before the presumed date of confinement on the presentation of a physician's certificate. During the entire time of her absence she is to receive her pay in full. These payments are to be made from a national fund into which the workers will pay 4 per cent of their wages and employers one-half of 1 per cent of their pay-roll; proceeds from fines imposed by laws will also go into that fund. In addition to the cash benefits, insured women will receive attendance by a physician or midwife of their choice. Smaller benefits are paid to

wives of clerical and manual workers in the establishments listed, who are themselves not employed.—*The Child*, August, 1938.

—☆☆—

## FEE SPLITTING AND QUACK ADVERTISING

A bill has been recently introduced into the French Senate penalizing not only physicians who divide the fees received from patients referred to them for an opinion or an operation, but also putting a stop to rebates given by orthopedic apparatus makers and druggists to physicians who send their patients to them. This followed the disclosure that many physicians in France were still continuing the practice of fee splitting with junior medical practitioners who sent patients to them, as also with insurance and commission agents who happened to bring cases to them for examination and report. The Editor of the *Calcutta Medical Journal* (September, 1938) believes the situation is just as bad, if not worse, in India. The same proposed law in France would prevent newspapers from accepting advertisements of treatments by quacks and unqualified charlatans. This sort of advertising is a very lucrative source of income in France. In India there is no standard of any description on such matters and faithhealing, charms, amulets, etc., flourish and advertisements by quacks and charlatans is just as lucrative as in France.

—☆☆—

## MORTALITY OF WOMEN ACCORDING TO BUILD

In a paper with this title read before the recent annual meeting of the Association of Life Insurance Medical Directors of America, Louis I. Dublin of the Metropolitan Life Insurance Company calls attention to the fact that overweight in women, as well as in men, is unfavorable to longevity. Overweight women showed characteristically high death rates from chronic degenerative disease of the circulatory system and kidneys, from diabetes, from most surgical diseases, particularly biliary tract disease, uterine tumors, pelvic disease and appendicitis, disease of child bearing, as a whole, and hepatic disease. Underweights suffered a high mortality from tuberculosis and pneumonia. It was found that the extra weight carried by some women caused premature breakdown of the circulatory system, making them an easy prey to diabetes and all diseases affecting the liver and gall bladder.



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"After all, testifying in court is very much like a game of golf. Dress for the occasion, assume the proper stance, drive forcibly and hard, and above everything else keep your eye on the ball, which in this case is the little ivory domed fellow in the back row."—*Ky. Med. Jour.*, Oct., 1938.

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## ECLAMPSIA IN INDIA

Investigations by Mitra and Ghosh (*Calcutta Med. Jour.*, Oct. 1938) show that eclampsia in Calcutta reaches its maximum prevalence during the season of maximum temperature. Their reported incidence of eclampsia is 1 in 33, whereas New York City reports a prevalence of 1 in 700, Guy's Hospital Charity 1 in 842, and Vienna General Hospital 1 in 318.

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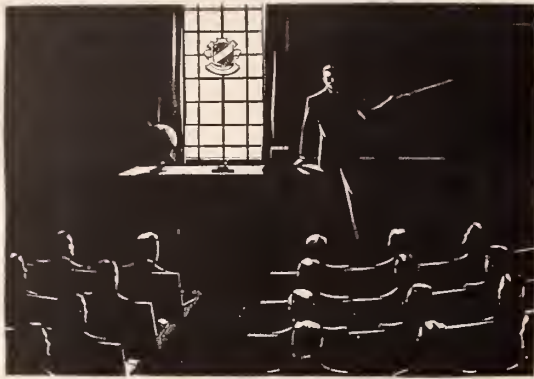
N. Y. State Jour. Med., 1935, 35, No. 11, 590 ☐ Laryngoscope, 1937, XLVII, 58-60 ☐

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